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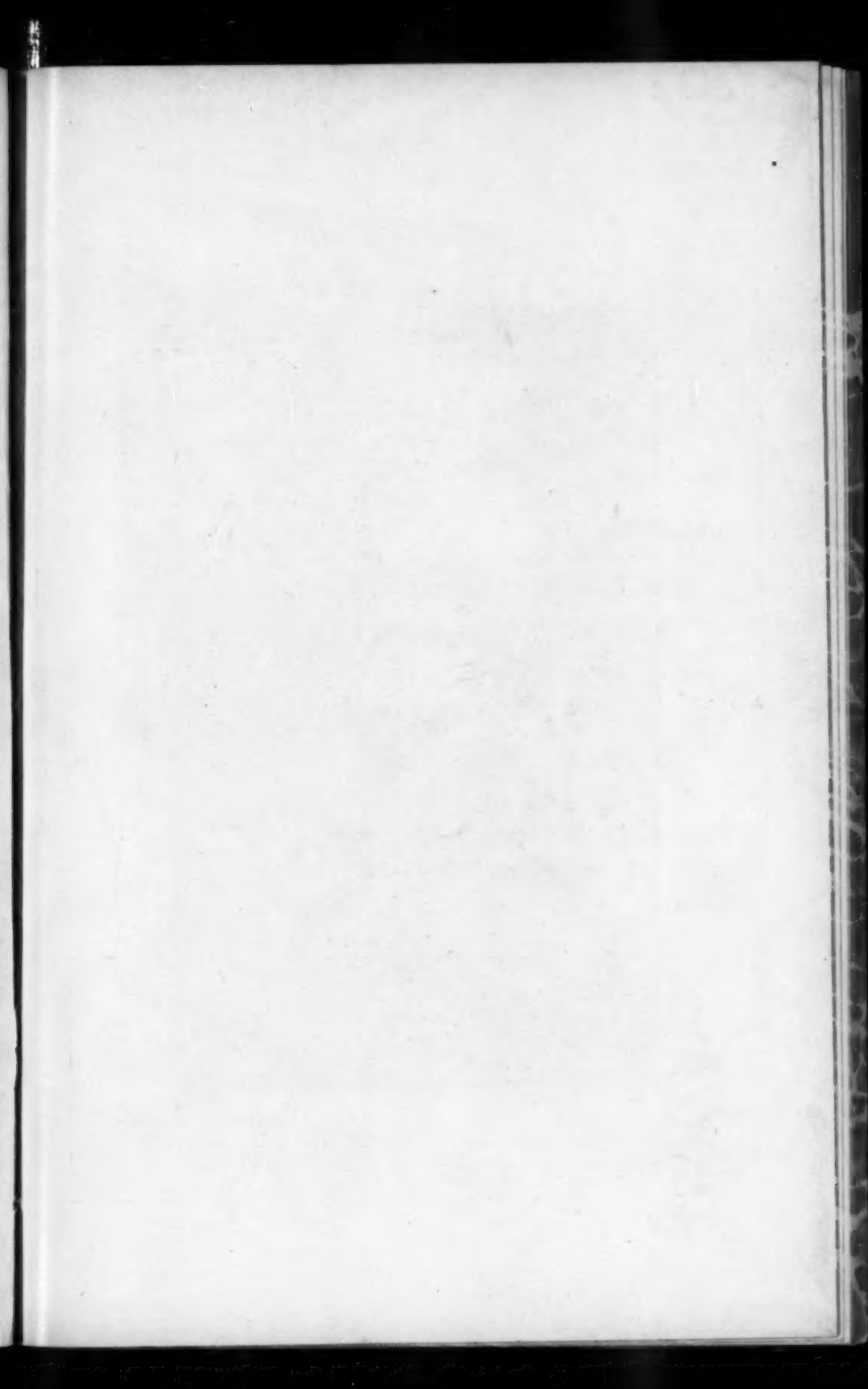
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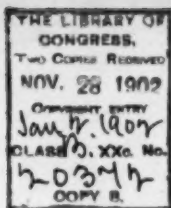
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# THE AUTOMOBILE MAGAZINE

VOL. IV

DECEMBER, 1902

No. 12



## *The Shooting* *By* *Marin J. Kent* **Scooter**

“HERE are no wheels in my head,” gravely responded the inventor to Ira Baldwin, who had intimated that perhaps there might be something of the kind, “but I have an automatic scooting rod that will render an automobile as safe as a baby carriage in the hands of a careful nurse. My device,” continued the inventor now wound up to a finish, “consists of a light steel rod placed in advance of the front wheels of a vehicle and long enough to reach from tire to tire. The contrivance is held in a horizontal position by a rod projecting from its center and strongly braced. The two rods form a T. The supporting rod runs through carriers and the free end operates a trigger that releases a powerful spiral spring that has a lifting capacity of five hundred pounds or more.

“The spring is easily set with a lever attachment which connects with the trigger. You can clearly see, therefore, that if anything should strike or press on the horizontal rod in front of the wheels the lateral rod would be driven in and, pressing the trigger, would release the spring. The seat on a motor vehicle equipped with my protective rod,” and here the inventor smiled triumphantly, “is detachable, or rather it rests on four concealed small wheels that run on ways fastened to the body of the vehicle. In short,

the seat will run along the ways and free itself from the body just as a trolley car would run off the track if a section of the rails were removed.

"By a clever arrangement, when the spiral spring is released, it shoots the seat clear off the body, while at the same time the flap of the seat is lifted by a ratchet attachment and with it the limbs of those in the seat. The seat is weighted so that it invariably alights ride side up, runs along on the wheels and gradually stops. Of course, the upholstery of the seat prevents any jar. If," concluded the inventor, stopping long enough to draw a deep breath, "an automobile provided with my rod shies into a stone wall or is collided with, it just scoots the occupants out on terra firma, safe and sound, and so neatly that there is not the veriest tremor in their spines. The vehicle may be smashed, but the passengers in it won't be hurt or even jarred. I call it the shooting scooter."

Baldwin was not an easy mark by any means, but the earnestness and apparent honesty of the inventor so impressed him that he finally gave him an order for a road machine equipped with the famous protective rod and sliding seat. When eventually it was delivered to him, moved by the humor of the whole affair, he promptly named the new affair "The Shooting Scooter." He was really rather proud of the new vehicle, and being very much in love with a young woman who had not fully made up her mind whether she was in love with him or not, it was but natural that he should expatiate upon the merits of his new purchase when in her presence and, in consequence, gain her consent to be the first girl to test its capabilities.

Elsinore Biggins was a handsome, stylish girl who had, influenced by her environment and consistently cultivated self-containment until her reserved manner was quite exasperating to those who, because of her loveliness and fortune, would fain have wooed and won her. But, as under Hecla's breast of snow the constant fires consume and burn, so underneath a calm exterior Elsinore Biggins concealed a passionate heart and a romantic disposition.

In a congenial atmosphere she would have been a daring girl. Her father, a wealthy operator, was pompous and puritanical and her mother was a sort of a feminine icicle. Baldwin was nearer to the heart of Elsinore than any other man and if he had been less prosaic and more of a romancer she would have loved him with all her soul. But Elsinore, with her romantic yearnings, was looking

for her prince who would win her in some extraordinary manner. So, with her temperament, her father's pomposity and her mother's chilliness, Baldwin had uphill work in his wooing, but he was persistent and at the last the inventor came to his aid.

On the day that Elsinore and Baldwin were to try the new-fangled carriage, and it had been agreed that they should make the test by taking a long run into the country, Baldwin was at the Biggins mansion soon after the breakfast hour was over. Elsinore was not ready and so Baldwin volunteered to take pater Biggins down to his place of business. The machine worked to a charm, but as Baldwin slowed up in front of the great office building where he was to leave his prospective father-in-law, he was slow in applying the brake, and before he could stop his progress the protective rod bumped against the wheel of a cab ahead. With a zip the two men were hurled backwards with exceeding velocity. There was a wild yell of delight from a concourse of newsboys and boot-blacks as the shooting seat and its occupants sailed through the air, struck the pavement and rolled slowly to a standstill. The astounded and dazed pere Biggins arose to his feet, rearranged his dignity, and, after glaring at the discomfited Ira, strode into his office and hurled anathemas at every human being therein.

Baldwin, who did not care a rap for the wrath of Biggins, found no difficulty in resetting the spring, and, with the help of the bystanders, in readjusting the seat. As he bowled up to the Biggins mansion again he congratulated himself upon the reliability of the protective rod and the immunity from danger afforded by it. Elsinore was awaiting him and the auto rattled to the Barclay street ferry, as the trip was to be made in Jersey.

Baldwin's carriage was the last vehicle that boarded the ferry-boat and behind it there was scant room to stretch the deck chain. As midstream was reached a loaded truck backed against the protective rod, and the obedient seat, with Elsinore and Baldwin, shot transversely over the chain and was safely deposited on the deck of a tug which was steaming past almost under the stern of the ferry-boat.

He who quickly seizes an opportunity is no chump, and Baldwin, far from being one, thought quickly and to the point. To the astonished pilot of the tugboat he said: "One hundred dollars if you will put us safely aboard that boat," pointing to a Cunarder that was slowly steaming out to sea. Elsinore was in a half fainting condition and clung to Baldwin in affright. The pilot turned



the nose of the tug and ran alongside of the steamer. The two were got on board and Elsinore was placed in the hands of the stewardess and the ship's doctor for, although the flight from the automobile had not seriously injured her, the suddenness of it all had left her in a state of nervous prostration and too dazed to fully realize her position. By evening she had recovered sufficiently to understand the situation and in tears sent for Baldwin. In answer to her reproaches he quietly said:

"There is no question but that I abducted you, and I did it because I love you and know that after what happened this morning your father will never let me marry you. There is a minister aboard and you can make me the happiest man in the world by telling me that I may bring him here to make us man and wife. In truth, I see no other way out of the doubtful position that my rashness has placed you in and I beg of you to consent."



Elsinore's inner nature arose superior to her long training and she murmured, "How romantic!" For the moment Baldwin was a hero in her eyes and at last she said with maidenly hesitancy, "You may bring the minister, Ira."

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### But He Got Away

There was no avenue of escape. The relentless pursuer was coming rapidly on.

"An avenue might be better," muttered the scorcher, "but as this street is asphalted, I shall be able to lose that bicycle policeman."

And that is just what he did.

## Non-freezing Liquids for Cylinder Jackets

By E. E. KELLER

**W**HEN cold weather came on last fall I became interested in the subject of non-freezing liquids for cooling gasoline automobile motors, and began to inquire among builders, agents and users as to what was a satisfactory and non-injurious solution to use.

I had occasionally noticed, in some of the automobile journals, mention of calcium chloride solutions and diluted glycerine for this purpose, but nothing of a definite or positive nature. The articles noted were usually nothing more than remarks that this or that substance, in an indefinite and varying form, was suitable.

My inquiries proved that there was no definite information to be had from the sources tried. Among the objections to calcium chloride were the following: "Engine got too hot," "Stuff would freeze when it was only moderately cold," "It cost too much," and, most alarming, "We have tried it at the factory and it ate holes in the tanks, pipes, and even the cylinders."

Glycerine was said to work well in some cases, but was very expensive, since it became foul in a short time and had therefore to be frequently renewed. Where rubber hose was used in connecting various parts, these were attacked and caused failure.

I then decided that, inasmuch as  $\text{Ca Cl}_2$  was supposed to be a neutral and inert substance and was really cheap if not purchased in homoeopathic doses, it being practically a by-product worth, in large quantities, from  $\frac{3}{4}$  cent to 1 cent per pound and purchasable in the quantities now under consideration at from 5 to 10 cents per pound (although one wholesale chemist asked me 65 cents per pound for the commercial article), I would avail myself of facilities in the way of assistants and apparatus ready to hand and have a few simple and easily made determinations carried out, so that the information to be gained might be available for the free use and information of my fellow users of gasoline automotors, and that the doubts now surrounding the subject might be, to at least some extent, removed from their minds.

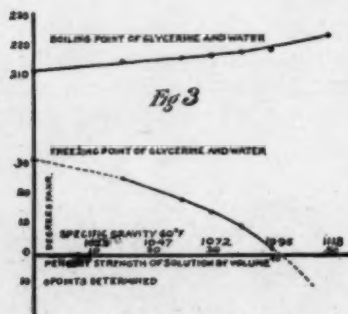
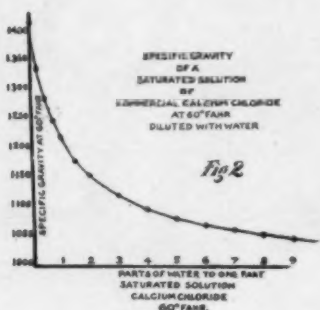
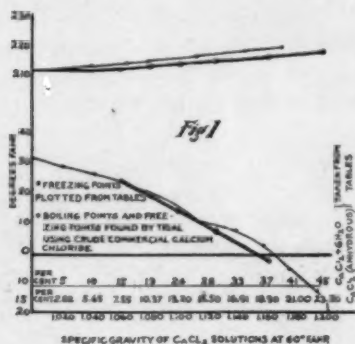
The diagram (Fig. 1) shows freezing points of  $\text{Ca Cl}_2$  solutions, plotted from a table given in Siebel's "Compend of Mechanical Refrigeration," which will be seen to produce a slightly erratic curve. The diagram also shows freezing points of such solutions determined for me by Mr. L. H. Flanders in one of the laboratories

of the Westinghouse Machine Company, the lowest point being at 2 degrees below zero Fahr., this being where the brine tank, in which test solutions were chilled, froze solid. The boiling points

of the same solutions were also determined, as shown in upper part of diagram.

I have added a curve of boiling points as given in "Dictionary of Solubilities," by A. M. Comely, which are slightly higher than those determined by Mr. Flanders, possibly due to errors of observation, as there was no effort to make extremely accurate determinations, it being unnecessary for the case in hand.

It will be noted that a solution of  $\text{Ca Cl}_2$  of about 1.20 specific gravity will not freeze until it has reached a temperature of about 15 degrees below zero Fahr., and that it boils at about 220 degrees Fahr. This solution should, therefore, be satisfactory in any reasonable climate. As to the question of injurious action of this solution on the metals with which it must come in contact, at the temperatures mentioned, I would say I now feel satisfied that there is no cause for apprehension, except possibly in the case of galvanized iron or of zinc. Careful experiments to determine this question were made for me by Mr. H. C. Babbitt, chemist at the laboratories of the East Pittsburg Gas Works, whose report in condensed form is to the effect that tests were



made to find the action of commercial calcium chloride upon soft steel, cast iron, sheet copper, sheet brass, galvanized iron and zinc. From 10 to 15 grammes of clippings of each metal were carefully weighed and kept at a temperature of practically 212 degrees Fahr., in a 50 per cent. solution for periods of from three to nine days, the solution being allowed to boil during part of that time. The results were as follows:

Steel, lost in weight.....	0.07 per cent.
Iron, lost in weight.....	0.09 per cent.
Copper, lost in weight.....	0.07 per cent.
Brass, lost in weight.....	0.001 per cent.
Galvanized iron, lost in weight....	0.16 per cent.
Zinc, lost in weight.....	0.77 per cent.

These figures are extremely small and probably at least partly due to the removal of a small amount of oxide or scale and possibly even dirt, excepting in the cases of galvanized iron and zinc, the latter of which is evidently attacked and therefore this metal and galvanized iron, on which the zinc would also be attacked, are not so well fitted for use in the circulating system of an automobile. The figures would indicate that the solution had no action whatever on brass and only a very slight and negligible action on other metals than zinc. They look larger in percentages than by actual weight. In each case the weight actually lost was in fractions of a milligramme, and would be considered within the limits of error.

Since writing the foregoing, I am in receipt of a letter, under date of January 17, 1902, from Mr. Elwood Haynes, of Kokomo, Ind., stating that he had made a similar test about a year ago with iron and copper, and that he had found, after ten hours boiling in a strong solution, a very slight loss in the case of the iron, which is ascribed to the removal of a small amount of scale; but the losses on both metals were practically nil and negligible. No tests on galvanized iron were made, but are now being carried out. Mr. Haynes further states that he has had this solution in a carriage for several months this winter, and has been unable to find any indications of injury. In my own carriage, in which no galvanized iron is used, I have had this solution for a month or more, and have had careful analyses made of small samples of the solution drawn each week, with no indications of the presence of any one of the metals included in the system.

In the case where serious injury was reported from the use of calcium chloride, I believe that this substance was in some way

substituted by some other, and that, in all probability, chloride of lime, whose chemical formula is  $\text{Ca O Cl}_2$ , was used. As the average automobilist has no facilities for determining specific gravities, and as making a percentage solution by weight of a deliquescent substance such as  $\text{Ca Cl}_2$ , is a very unreliable procedure, I append a curve (Fig. 2) showing parts of water to be added to one part of a saturated solution of  $\text{Ca Cl}_2$  to produce approximately, solutions of various specific gravities. To be fairly accurate, the saturated solution must have a temperature of 60 degrees Fahr., and it can best be made by dissolving as much of the salt in water, as the water (thoroughly stirred) will take up, with some crystals left undissolved when the solution is at 60 degrees. Roughly, to make one gallon of saturated solution will require about one-half gallon of water and eight pounds of the commercial calcium chloride having usually the chemical form of  $\text{Ca Cl} + 6\text{H}_2\text{O}$ . It happens that approximately the best solution for our purpose in this latitude (Pittsburg, Pa.) can be made by using one part saturated solution and one part water. All that is needed, therefore, is a measure of some kind and a fairly reliable thermometer. The solution will contain some insoluble impurities and should be carefully strained or filtered.

Some samples of calcium chloride contain more or less "hydrated water" than is given in the above formula, and therefore, the quantity of crystals per gallon of saturated solution may vary somewhat. In other latitudes a solution of higher or lower specific gravity may be advisable, and it is well to use as weak a solution as will be safe against freezing at the lowest temperatures to which the vehicle will be exposed. It is important that, when a solution of high specific gravity, such as proposed for this latitude, for instance, is used, it be not allowed to concentrate materially by evaporation, but that water be frequently added to the tank so as



CHLO RIDES



to keep the solution fairly normal, otherwise crystals may form in pipes and cause trouble. A good plan is to purchase a suitable hydrometer, and occasionally measure the specific gravity, but this is not really necessary.

For the use of anyone who may prefer glycerine, I append a diagram (Fig. 3) showing curves of freezing and boiling points of various volumetric percentage solutions. Probably the best glycerin solution to use in this climate is one made up of one part glycerine and one part water. Any losses from leakage should be made up by the addition of fresh solution in either case, while losses from evaporation are to be made up by adding water, as above



mentioned. It will probably occur to most users of acetylene lamps that the above calcium chloride solutions can be used in place of pure water, and winter troubles avoided.

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### Salesmanship

"What is the key to success in selling automobiles?"

"The ability to make people pay."

"Pay for what they get?"

"No; pay for what you tell them they are getting."

## The Prank of Piute Bill

BY RANSOME V. STEADMAN

**W**E had gone to Montana hunting; we had hunted and found shelter. A roaring fire of fat pine, a lot of chairs, comfortable but not stylish, a disposition to yarn and to imbibe wisdom and other things made us a rest-loving aggregation. Temporarily all Montana game except poker was safe—at least from us.

"While the talk had stuck to horses the ex-Sheriff of the county had enjoyed the society of our party whose liquid hospitality he had been invited to share. When it took an up-to-date turn and switched to automobiles he began to be bored. The conversation wandered among the intricacies of explosion chambers, motors, mufflers, carburettors, gears and the like, and although the ex-Sheriff's glass was filled and emptied with the rest, a tired, far-away expression crept over his face and he spat at more frequent intervals into the sawdust box beneath the bar.

"The only contrivance of that kind that ever come through here," he reflectively said at length, "stirred things up considerable."

Whereupon the entire company, having expressed its interest by the usual invitation, the Sheriff removed the superfluous moisture from his sweeping mustache with the back of his hand and told how the first automobile came into that particular portion of Montana.

"'Twas a couple o' years ago last spring. A couple of fellers came through goin' to Chicago, at least that was their intention when they struck this camp. The boys aroun' here was naturally interested in the machine they had, rather big, clumsly lookin' rig at that, but it sure could throw dust. Some of the boys wanted t' race it first off with th' fastest horses in camp, but after the machine did the snake dance all the way around th' speediest broncho in th' bunch the gang natcher'ly wanted t' be put on to how it was done. Well, the chaps, bein' good natured, showed 'em where t' pull a handle t' set her goin', how t' let her out or check her in, 'n what an easy mouth she had.

"It panned out that t'was a dern fool trick t' put th' gang on, 'cause next mornin' when th' two fellers got up bright 'n early fer a long day's run; no machine! Mike that keeps th' hotel and a few of th' early birds was standin' lookin' at th' broken lock on th' door of th' little shack where it had been put overnight. A

couple o' wide tracks down th' trail made a clear showin' which way it went, but t'was hard guessin' how far along it'd got by that time.

"Say! Those fellers was smooth-faced easy-lookin' chaps, but they sure did know how to express their feelin's under th' circumstances. Their remarks kinder worked th' boys up, too. Hadn't been any excitement in camp fer some time 'n th' gang went right off on a rampage fer want of somethin' better t' do, loaded up guns, filled up on whisky 'n big talk, 'n started out like all sin dead bent fer a lynchin' party.

"Bein' an officer of the law at the time I kep it on my mind t' preserve law 'n order 'n re-

cover th' lost property. I knew dern well though t'was no use buckin' against a lot of half-crazy galoots like them when they've got licker in 'em an' an idea in their heads so tight you couldn't chop it out with an axe. So off went th' whole bunch; me with 'em. Had t' laugh, too, t' think of catchin' that thing with hosses. They hed oil enough aboard, 'cordin' to th' owners, t' go fifty mile straight. I mentioned t' fact t' one of th' boys who was a little soberer than th' rest.

"That's all right,' sez he, 'how 'bout Goose Creek?'

"Gee sez I, 'that's so. Can't cross there with that. It's been runnin' high this week. No goin' cross country either on them spider wheels.'



"Pretty soon we begun t'take th' rise 'bout a mile this side o' the creek. On top of the knoll we could take a view clean to the bank. Way down there in the middle of the road was the machine, standing still just above where the road dips to the ford. Somebody was fussing round it. We knew it was the machine 'count of the sun dazzles shinin' on th' brass parts. Then th' boys let out a yell an' hit up th' pace for fair. A little nearer they began to shoot, more t' scare th' cuss than fer anythin' else. There was no chance t' hit him that far. But it sure did scare him. He jumps in, pulls th' levers 'n goes down slow over th' bank and out of sight. Then he was safe as a gopher in a hole fer th' time bein'.

"Everybody pulls up just out o' range, because you'll see there was no tellin' when lead might be comin' over th' bank in chunks. The game was sure treed, an' the boys went at him kinder careful, havin' him cinched as they tho't. We gets into th' bushes an' covers th' road an' th' ford with our guns. Horny Bill and Dave Smith sneaks down stream a little ways from th' bank 'n lays quiet. Then everybody waits a while cussin' a bit an' sweatin' like th' devil.

"Of a suddint up pops a Winchester over th' bank. He lets fly six times up th' road, hit 'er miss, an' by good luck it was miss. Then he dodges down.

"'Piute Bill!' we all yells as we sees his ugly jaw just over th' bank. So it was, the skunk. In a minute th' machine begins t' chug 'n gurgle down there. 'Twas queer if he was startin' up, fer th' creek was full high an' rushin' at a gait that'd give a strong hoss a big tustle t' git over. But Bill an' Dave from behind a tree down th' shore lets out a whoop an' begins shootin'. Then we jumps out t' see th' fun. The fool was sittin' in th' seat with a lariat round his waist, one end tied t' th' wagon body, an' steerin' her straight into deep water.

"Of course th' dern thing didn't float, but she was so heavy she run right down inter th' water an' disappeared under, runnin' along th' bottom. Bill he stays on top an' it pulls him along like a fish on a line. Funny? Lord, how we did howl! We was laughin' so hard an' most of us was so unsartin'-handed from th' booze that not a man could shoot straight enough t' pop th' floater. So there was th' machine getting away safe an' sound downstream an' takin' Piute away with it.

"Then Horny Bill steps out down th' bank an' th' gang quits shootin' t' see what was goin' t' happen next. Piute was quite a

little ways from shore by this time an' pullin' away fast. Horny whips out his rope. He wasn't no slouch with it neither, an' though 'twas a long distance throw he lands th' noose square over Piute's head 'n shoulders. Pi tries t' fight it off, but 'twas no go.

"What with th' machine an' th' creek pullin' one way an' Horny an' Bill t'other t'was a tight squeeze fer ol' Pi an' no mistake. Th' air tires on th' machine, though, kinder lifted her a little off th' bottom, I suppose, an' th' steady pull swings her head in t' shore. Then they hauls Pi in, black in th' face an' dead gone from th' squeezin' an' bein' under water off an' on fer severial minutes. Then comes th' machine climbin' slow up th' bank after Pi, all by itself an' sorter 'shamed like. The paint was most all off her from th' sand an' rock in the creek an' th' shirt an' th' hide was most all off Pi 'count of th' two ropes. Th' machine had barely 'nough spokes left t' hold 'er up.

"Well, say! The gang just lay down an' rolled over with joy an' gasped fer breath t' see th' pair of them. When they got through they was so weak they couldn't hev strung Pi up ef they'd wanted to. But they didn't. T'was too good a joke on Pi an' then they'd hed a lot more fun out of it than they would out of a bonny fidy lynchin' bee. Horny, he says, 'Shucks, y' can't hang a man fer stealin' a hossless waggin, can ye.' An' that settfed it.

"I can't explain how t'was she didn't explode or go out under water. Don't understand the innards of them things any way. Them fellers that owned it was sore, though. They stirred up trouble with th' Gov'nor 'n he had me fired fer not holdin' Pi. No more unthankful public jobs fer me."

And the ex-Sheriff accepted with alacrity another invitation to step up.





## The Old Guideboard

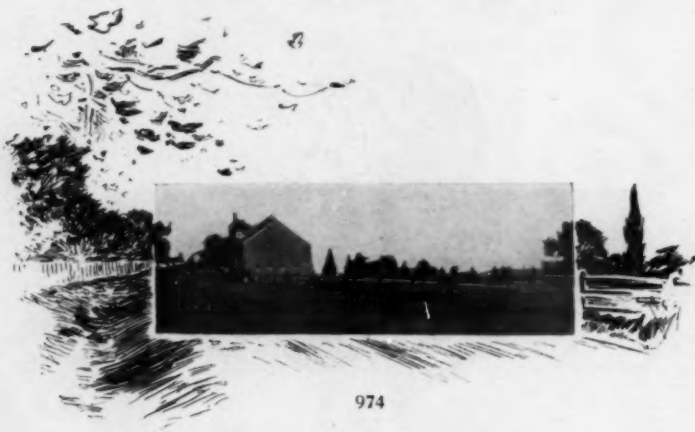
Where country roads diverge with graceful angle  
To skirt the wood or perfume laden field,  
Above the climbing vines and wild flowers tangle  
The gray old guidepost's fingers are revealed,  
Whose letters time's soft touch has half concealed.

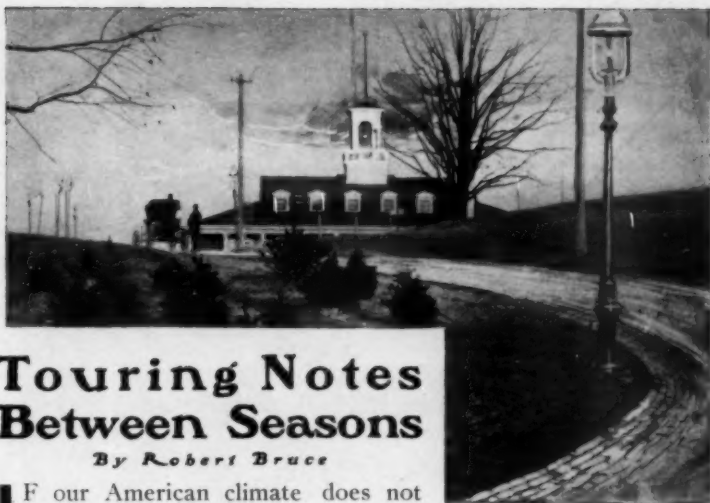
To dusty wanderers it speaks in pity;  
It marks the traveler's nearing goal;  
It counts the many miles to the far city  
It names old towns where nature holds control,  
Or points the way where ocean surges roll.

And aged men, this thoroughfare frequenting,  
Bear semblance to this weatherbeaten sign;  
Time's odometerd miles they seem presenting;  
'Mid nature's bowers they point down life's decline;  
Their placid faces coming near divine.

Some tourist 'tis, observing, speaks most often,  
Of mellow marks upon the signboards,  
And tourists, too, first note the lines that soften  
The usage of a lifelong friend with grace,  
So subtly done we failed the change to trace.

Submitting to earth's edict of succession,  
This landmark gray will fall 'neath time's vast trend,  
And gentle, aged faces make confession  
These lost descents on toward life's ocean tend;  
Each calmly rests and waits its mission's end.





## Touring Notes Between Seasons

*By Robert Bruce*

**I**F our American climate does not justify the compliment that Charles

II bestowed on that of England—that it calls one out of doors more days in the year than any other—it is probably entitled to the distinction of calling oftener and with a louder voice. At least we do not have so many tame, dull days. On their own soil, Englishmen do not mind being out in the rain; they will suffer a great deal of inconvenience rather than omit their daily walk, drive or run. English roads, however, are of such a character that you can travel over them without being covered with mud in damp weather as is the case in this newer country. By comparison, the merry monarch's compliment may not mean as much as it seems.

From mid-April to and through October, hardly any climate in the world is equal, not to say superior, to our own. What a varied and shifting panorama! What unique and delicious days are scattered from the beginning to the end of our summer; and yet no week or month—scarcely any day—repeats the pleasures of any other. Each offers something peculiar to itself, and the man on the road comes to know and appreciate them all. Nevertheless, we are compelled to notice that the fleeting days are those of summer, really the longest of the year. It takes a long time, so to speak, to go from November to April or May; but all too soon we get back again to that point where only Indian summer may interfere for an extension of our automobiling weather. And even while we prepare to enjoy that respite to the utmost, lo! it is gone, and our

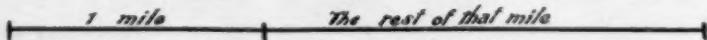
favorite highways and byways are covered with snow and ice. Then at least we are thrown back upon clubhouse topics, with our memories and notebooks of that which is past and anticipations of what another season is to bring to us.

#### WHERE DISTANCES ARE ELASTIC

If there is any one thing more than another which fools the locally unacquainted tourist, it is the distances in the country as given by the natives to whom inquiries are addressed along the way. A statute mile is supposed to be a mile the world over; but in reality it varies according to the ideas of the informant. Two automobilists, who were also fishermen at times, decided one day this last summer to make a detour over an apparently good stretch of road through a woodland to a locality where they had been told there was good trout fishing. It was all strange going, but straight-away and no danger of missing the way. The day was hot and close, and it was not their intention to make a fast trip. By and by they inquired of a native how far it was to the river.

"Well," was the reply, "I reckon if you go right along, it's about six miles, an' shady all the way."

Our tourists decided that six miles more of sun and shade was just what was wanted, and started off again at an easy pace. After they had gone on about an hour, one of them remarked that it was



the longest six miles he had ever traveled. For the next quarter hour they kept a sharp lookout for the bridge that marked the river-bend to the trout pools, but it didn't show up. That came in sight fully a half hour afterward. It was an honest difference of opinion between them whether they had traveled twelve miles or twenty. Coming upon a hotel they wanted to know, with some agitation, for what purpose the native had told them so far wrong. The genial boniface laughed.

"It's a good fifteen miles you've come," said he, "but he didn't intend to lie to you. It's their way of figuring it, not their perversity of spirit. After this you just bear in mind that a country mile is fearfully and wonderfully made, and it will save you a lot of trouble. People up here reckon distances solely by personal judgment. When they say a mile they want to be sure of good measure, and sometimes this "extra for luck" is as long or longer than the original.



WHEN THE LEAVES HAVE GONE

One of the tourists said he was willing to let it go at that, but the other wasn't going to let everyone else be fooled the same way. So he took a piece of paper and drew a scale to represent the local idea of a mile. A line six inches long stood for the commonly accepted statute mile, and to it he added another line eight or nine inches long, over which he wrote, "The rest of that mile." When he left he had the pleasure of seeing his diagram pinned up in the hotel office.

## SEASHORES AND MOUNTAINS

The beaches seem to be more popular than the mountains with the automobilists; yet I fancy that this is rather a matter of convenience than of choice. The beaches are near and the mountains far off. Families can make their homes all summer long on the nearby shores of the sounding sea, and the men at the head of them can come up in the morning and go down in the afternoon without letting go of their business. Of course that is not possible to do with the mountain country. Naturally and instinctively, if it were a matter of clear preference and not one of convenience, those who live as near the sea all the year round as New Yorkers, Philadelphians and Bostonians do would go more generally to the moun-

tains, or at any rate to the inland farm country. And by the same natural and instinctive preference, the inland people would seek the seashores.

It is a question of long standing whether the mountains or the seashores offer the largest attractions for people who can afford to choose between them. Oliver Wendell Holmes considered it in his philosophic way in the "Autocrat of the Breakfast Table." He said that the difference between the two is that "you can domesticate the mountains, but never the sea. You may have a hut, or know the owner of one, on the mountainside; you see a light half way up its ascent in the evening, and know there is a home in it and you might share it." On the other hand, he observes that "the sea remembers nothing. It is feline. It licks your feet; its huge flanks purr very pleasantly for you; but it will crack your bones and eat you for all that, and wipe the crimsoned foam from its jaws as if nothing had happened. The mountains give their lost children berries and water; the sea mocks their thirst and lets them die."

Dr. Holmes declined to say which he liked best, but it is evident that his larger love was for the mountains, for he winds up by saying: "The mountains have a grand, lovable tranquility; the sea has a fascinating, treacherous intelligence. \* \* \* The mountains dwarf mankind, and foreshorten the long procession of its generations. The sea drowns out humanity and time; it has no sympathy with either, for it belongs to eternity, and sings its monotonous song forever and ever."

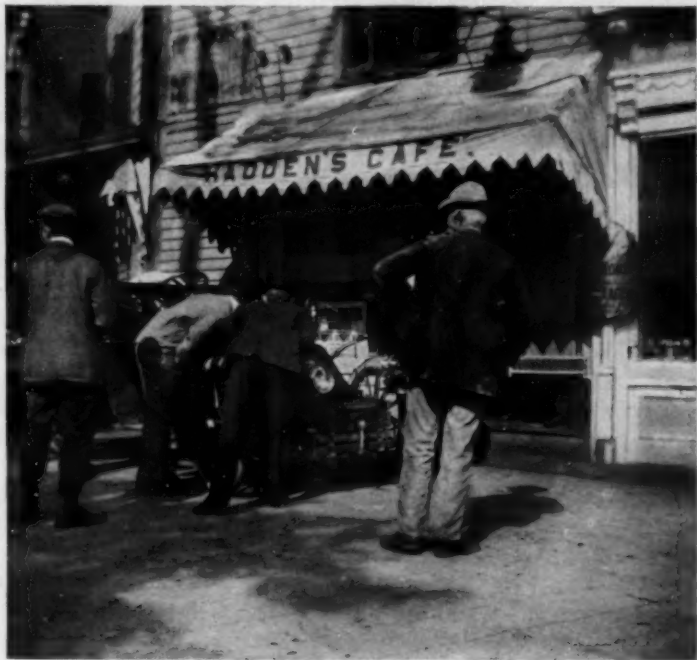
#### AUTOMOBILING AND PHOTOGRAPHY

Do you ever take photographs on your tours? If not, you have missed one of the most interesting side-issues of the game. There is a solid amount of real pleasure derivable from the mere taking and preserving of views out on the road. Every photographer is more or less a nature student, and the enthusiastic automobilist is very apt to be of like mind. He is not a mere mechanical figure driving along only to run up the miles (as some imagine), but rather an observant traveler, ever watchful for some special piece of nature's handiwork to capture for his scrap-book or album.

The automobilist who is also a photographer is doubly blessed from the fact that his field of operations is practically unlimited. The pedestrian photographer, on the other hand, has a field confined to within comparatively few miles of the place where he happens to be. But the automobilist can store away his camera and tripod



(to say nothing of lesser paraphernalia) in a corner of the vehicle without the least trouble, and bring back many interesting souvenirs of his journeys. Nothing gives more pleasure to one inclined that way than a collection of pictures personally taken. They instantly recall a good time, and become entwined with pleasant memories—which money or hired effort of any kind cannot procure. With a camera near at hand, too, one is likely to observe things not other-



WHILE THE OWNERS ARE INSIDE

wise noted; and may often turn into a very enjoyable run that which would otherwise be more or less a monotonous trip.

#### ONE REASON FOR ROAD NEGLECT

For a generation the people of this country have been helping the railroads extend their lines in every direction. "Just get a railroad through my property and my fortune is made," has been the expression of more than one extensive landowner. And he has helped the steam lines with great benefit to himself and his com-

munity. But long ago he should have devised some means by which the public highways could have shared in the uplift, and made more useful to his everyday life than the railroads could possibly be.

Too much cannot be said against the backwardness of certain localities and the atrocious management of their local thoroughfares. One comes across, in turn, regions where he may speed his machine for miles upon perfect highways, succeeded by stretches of deep holes, ridges and ruts. The difference is frequently one solely of management—or perhaps rather of mismanagement. The chief need is for an intelligent public interest in these things, backed up by competent, painstaking work from the foundation to the surface.

The people—particularly well-known and influential automobilists, both severally and in their club affiliations—should scan the methods and results of the road contractors more closely, and especially take care that none but honest men have anything to do with awarding the work. In seeking these ends, it is a good thing to look to supervisors, aldermanic boards, county judges and other responsible officials for their interest and support. Men who have some practical knowledge of roadbuilding and maintenance, sound ideas of the relative value of soils and repairing means, and the proper methods of drainage, these are most of all in demand. Not every man who can make a furrow down a countryside is a road builder; nor can any fellow who can cut down a tree which shades a mud puddle necessarily carry through an important public work.

Many people who would not think of allowing anyone to appropriate their private property stay quietly by year after year and see their road taxes spent to no permanent advantage. Yet, how valuable to them would be a hard, smooth road running past their estates to the county-seat or the public market? The disease is plain to every traveler, and this is the cure: (1) competent and efficient roadbuilding and maintenance; (2) up-to-date methods and equipments, and (3) adaptation of all vehicles to road-making rather than to road-breaking.

#### ON STRANGE ROADS

The tourist without a fairly well-developed bump of locality is certain to come to grief at intervals. Even if he studies out the route most carefully before starting, sooner or later he comes to a fork in the road where he must trust to luck. There are, of course, no statistics as to how often he takes the one which will bring up at the wrong place.

Perhaps after he has traversed a few miles he meets a farmer

or comes upon a house and learns of the mistake through inquiry. Then he is as likely as not told of some short-cut to the right point, and his fate becomes very hard—at once. He strikes a wretched cross-road and flounders through sand and gravel, with perhaps a few trolley car trestles en route, until he vows to expurge the word "short-cut" from his vocabulary ever afterward.

Sometimes he follows a telegraph line, according to certain directions he has received, but, deep in the pleasures of automobiling, he forgets about this, and the first thing he knows the poles and wires have vanished from sight. Perhaps he determines to rely upon the sun to give him the general direction. But it is all the same; the points of the compass seem to shift in unaccountable fashion, and as time progresses he realizes that his destination is no nearer. Then he takes the rest of the day to get back where he started from, and puts out anew and better informed on the following morning.

It is interesting to note how an automobilist's importance grows with the distance he succeeds in getting from home with his own machine. There seems to be something like regular grades in it. One hundred miles away from home one gets his name in the printed lists of hotel arrivals; at five hundred miles he will be interviewed by the reporters; and at one thousand miles and upward his photograph and the picture of his machine are solicited for the local newspapers.

A locally acquainted man is really a much more interesting traveling companion than the very best printed guide and road book, especially when he takes pains to show you a thousand points of interest—little things that the guide books and maps ignore, or that you would not be likely to recognize of your own accord in the hurry of the moment. These things, the unexpected discoveries, the quaint surprises and interesting side-issues give to overland road travel its greatest charm.

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### Contemporary Literati

Literature was not infrequently the subject of their conversation.

"I understand," observed the Lay Figure one day, "that most stories are now written by a process virtually mechanical."

"Yes, the literary hack has been superseded by the literary automobile," hastily put in the one called the Lobster.

The others meanwhile took comfort in the thought that death, while loving the shining mark, is not indifferent to the easy mark.

## Converting a Scorcher

BY ANNETTE ANSTRUTHER

**I**T was in one of those old southern communities where, if the manner is slow, the blood can get very hot, that our Major lived, in a fine old house at the top of a slight rising of the ground, called by courtesy "Mansion Hill." A very sweeping, curved road led through the Major's grounds to the turnpike that connected Jewburg with Centerville, the next neighboring small town.

Jewburg was very progressive for its locality, Adams, "the owner of the general store," having a little motorette, "of an early make, somewhat speedy, but very noisy," to cover his wide area of trade with, and he ran it generally at a rate of speed that made the crackers jump, but Adams extremely happy. At no place did it please him quite so much "to make her hum" as past the park gates of the Major, for as the roads laid, he could see the Major starting out for his daily drive with his spirited pair of blacks long before the Major could see him, and it was great sport, as he rattled by, to see the old Major, struggling with his frightened beauties, "for it was a very sore spot with the Adamses that the Major's family had never called, although the Adamses' bank account quite equaled theirs if not more." With a few deep oaths the Major stood this daily annoyance, until he was convinced it was done with a purpose; then he stayed in one morning, driving over to Adams' store late in the afternoon. The motorette stood at the curb, with Adams relating to a few kindred spirits "how he had made the Major give up his morning drive," when that gentleman drew up. "Admiring your motor, Adams? She seems very speedy, if rather noisy."

"Yes sir, she can go," replied Adams, a little embarrassed.

"What make is she?" and while Adams fully explained every part, thinking the Major had been won over to his way of traveling, the Major got down and carefully examined the vehicle.

"I think I have it now, Adams, and ask you once more to stop scorching by my grounds."

Adams, mumbling a sort of apology, watched the Major drive away a little puzzled, for the Major's manner was new, and for a morning or two the scorching was not indulged in. In the meantime the Major had got in order one of his favorite pistols.

At last a morning came, when the temptation to make the Major jump could not be resisted. Away banged the auto and

wildly plunged the Major's horses, though the Major made no forcible remark, as usual. Adams laughed loud and long. He was a little startled, however, on nearing Centerville to find the Major following, "for the Major's temper was known." As he drew up at the first house, the Major drew up also, and, without a word, out came the pistol and a bullet crashed into that auto's heart, the next into its lungs and so on, until all the vital parts were all punctured and Adams had enjoyed the pleasure of waiting for one for himself during a few very trying moments. "I think I have covered all the vital parts you showed me the other day, Adams, but the next time you scorch by my gates I will aim at yours." When that auto came back from Baltimore with a very large bill for repairs, it was noted that Adams always drove with caution on the Centerville turnpike.

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### Some Foreign Ideas

**T**HE new British automobile corps is tackling volunteering in quite a serious and businesslike manner. On its first appearance it set itself the rather high mark of endeavor, which consisted of an attempt to capture dummy despatches which were being carried by balloon. The supposition was that a balloon rising from a besieged city carried important despatches, which it was the automobilist's duty to capture.

The balloon car was occupied by the owner, Mr. Bucknall, of the Aero Club. Rising from the Crystal Palace, near London, the balloon was followed by about fifteen cars on various roads, all tending in a southeasterly direction. The pursuit was rendered more interesting by the balloon rising to a high altitude, and being above some clouds, it was for a time lost to view. The object in rising so high was to obtain an air current going in a different direction, and this was attained, for when the pursuers regained sight of the balloon, it was traveling at right angles to its former course. Ultimately it descended near Staplehurst, 35 miles from the start, the despatches being captured by Mr. J. Hutton on a 10 H. P. Panhard. These contests are to be continued.

Great preparation is already under way for the capture of the Gordon-Bennett trophy, and European automobilists who have the privilege of reading a certain American publication recognize with some trepidation its decision that next year the trophy must go to America. In the meantime, however, there are firms in Europe



who have determined to give the American cars to be sent over a good run for the victory.

The Cannstatt people are getting three Mercedes cars ready to represent Germany, and the French Automobile Club has already fixed that one of Mors cars and two of Panhards shall represent it. This, by the way, is a new departure for the A. C. F., as it has hitherto been content to decide on the drivers, and allow them to choose their own cars. Now the firms named will select the drivers. Britain also will make some effort to retain the trophy and there are already a sufficient number of racing Napiers being built for private owners to secure that that make at least shall be well tried before the contest comes off.

Everything therefore points to a splendid contest, and the work of the fifteen American firms, "anyone of which could build a car to win the cup," will require to be of the very highest class to succeed. Meanwhile the scene of the contest has yet to be decided, but the writer's opinion is that it will be found in France. Britain has, of course, the first say in the matter, and there are plenty of suitable roads, but an Act of Parliament would be necessary to secure their exclusive use for the time being, and public opinion in this country has not yet been educated up to conceding so much.

Alcohol continues to increase in favor in France, for, not only does its use appeal to the patriotism of Frenchmen, a strong factor, but it secures for its users the benignant approval of the Government, and when a question of road racing is under consideration, the approval of the administration weighs.

But a new phase of the question comes on the top in the discovery of a cheap method of preparing alcohol from carbide of calcium. In this process acetylene, prepared in the usual way, is converted into ethylene by passing through an alkaline mixture generating nascent hydrogen, such as zinc and ammonia solutions. When shaken with strong sulphuric acid the ethylene unites with it to form ethyl-sulphuric-acid, which, when mixed with a large proportion of water, and distilled, produces ethyl alcohol.

This product has hitherto been too costly to compete with alcohol produced from grain, fruit, or vegetables, but the new discovery is said to have the effect of reducing the cost considerably, and the agricultural societies are clamoring for an import duty on carbides sufficient to protect the home industry. The duty suggested in one case was equal to \$5 per 110 pounds, which, if imposed, will be a considerable addition to the price of carbide for lighting purposes.

A. F. S.



## Why Not to Florida?

By CHARLES W. BIRCHWOOD



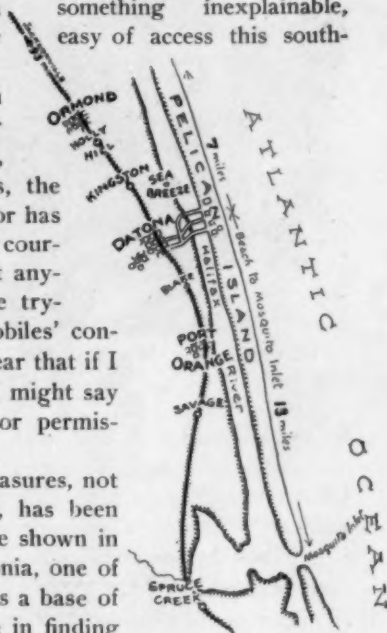
**W**HY, in winter, Florida is not the Mecca toward which all pleasure-loving automobilists turn, is a thing which I cannot understand. To anyone who, like myself, has enjoyed driving an automobile over the smooth beaches and fairly good roads with which Florida abounds, the refusal of

American automobilists to appreciate the attractiveness of this superb winter touring ground is something inexplicable, especially when you consider how easy of access this southern paradise is.

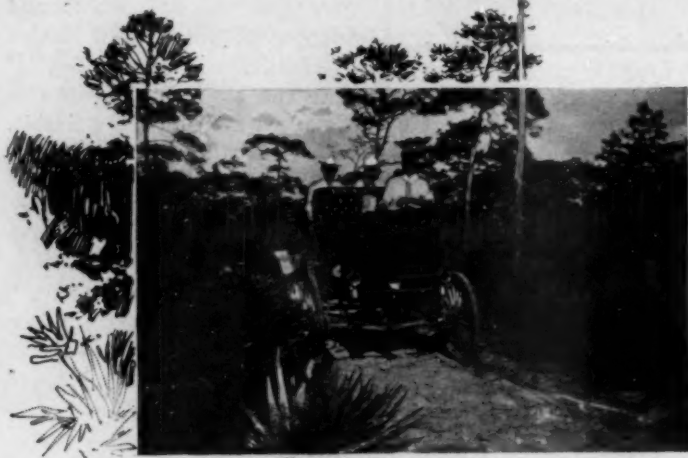
It is not my intention to claim nothing but splendid highways for the entire State of Florida, for, like her more pretentious sisters, the land of the orange and the alligator has her share of what no amount of courtesy or imagination could warrant anyone in calling "roads." Of these tryers of men's souls and of automobiles' construction, I shall say nothing for fear that if I attempted to do otherwise, what I might say would be neither parliamentary or permissible.

My own experience of the pleasures, not the penalties, of Florida touring, has been gained in that portion of the State shown in the map herewith. Taking Daytona, one of the prettiest places I have seen, as a base of operations, I have had no trouble in finding plenty of delightful country through which a Haynes-Apperson surrey carried me safely and swiftly.

Daytona is on the east coast of the peninsular, about 95 miles south of Jacksonville, and is easy of access by northern tourists,



who will find no trouble in having themselves and their carriages safely and pleasantly transported there. From Daytona good roads radiate and one can run to Ormond, 7 miles; Enterprise, 12 miles, and Deland, 30 miles, over as good country roads as you will find in almost any other State. I have carried five passengers in the vehicle you see in the accompanying illustrations to Deland in two hours and ten minutes, and we were not trying to make any records either. I know of a great many places in the North, too, which boast of their good country roads where I wouldn't care to risk my life in at-



tempting even so leisurely a performance as this. So much for the ordinary touring ground, but now for the extraordinary one.

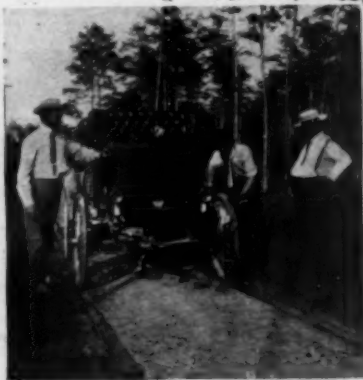
Passing through the famous City Beautiful, the founder of which has lately become a somewhat noted personage for reasons which need no recounting here, over a road which needs no improving, a ride of two and one-half miles lands you via the north trail on the famous beach.

Stretching away for more than thirteen miles, and with a width of never less than two hundred feet, is a dead level expanse of beach as hard as a piece of flint and as smooth as a billiard table. There are no people, police, or prohibitions of any kind to prevent you doing that thirteen miles just as fast as the Lord and the capacity

of your vehicle will permit. It is worth going many miles further than Florida is to take possession of this magnificent stretch of natural highway, and for once to enjoy the pleasure of turning yourself loose, without a feeling of apprehension that every moment is bringing you nearer to a judge, a jail, or a jury.

For four hours each day this beach is absolutely perfect. Between times the action of the tides interferes somewhat with the automobilist's enjoyment, but the interference is by no means great enough to prevent his using the beach for driving over. Nature has done her share, and man has not failed to do his, with the result that the automobilist finds upon this famous beach more than one hotel which is as fine in its way as the beach is in its.

Why it has remained for me to call the attention of my fellow motor vehiclist to this ideal spot for either a leisurely loaf or for a midwinter speed contest, at which I am sure every record of the world from one mile to ten could be broken, I am at a loss to understand. Now that I have done so, I hope the coming winter will see others enjoying Florida's roads as much as it has been my good fortune to.



### Up Against the Liquor Traffic

"Is that report true about Willie Rushmore joining the Prohibitionists?"

"No; I think it started from his attempt to smash a beer wagon with that big Panaracque he goes scorching around town in."

## How the Biter Was Bitten

BY A. CONVETH

**I** HAVE always entertained a holy horror of horses and regard the uncertainty of their tempers and habits with nervous dread.

This does not arise from natural timidity, but I think it is due to the fact that an early experience with a horse had left a nervous prejudice in my inner consciousness.

During my tender youth I went to stay for a time on a farm, and one of the first treats bestowed upon me was a ride on a horse. The animal was led by a man riding on another horse, and all I had to do was to sit quietly and cling to the mane. Among my treasured possessions at that time was a match box with a mirror lid. When I became familiar with the movement of the horse, I ventured to draw the box from my pocket. As I did so the sun glittered upon the shining surface and a glare of strange light flashed out. The horse seemed to think that an electric light had taken possession of his back and resented the liberty. He suddenly stood on his hind legs and then as suddenly changed to the front ones. I received an impression that I had started on a flight to the moon, but the return to earth crushed out the illusion painfully. The effects kept me imprisoned in a bedroom for a month and spoiled my summer's holidays.

I have been astride of a horse since that time, but never for pleasure. While riding behind one, except in a bobtail car, I am always watching for a soft place to jump when the runaway begins.

Imbued with these sentiments and prejudices, it was natural that I took to mechanical means of road locomotion. I delighted in the bicycle and gained a reputation for speed that proved there was no timidity connected with my antipathy to horses. But the bicycle had its day. When the automobile began to appear, I recognized in it a method of traversing our highways and byways with dignity and ease.

I was interested from the beginning and studied the growth of the motor car with keen interest. Its elementary weaknesses and shortcomings were even more serious than those that had so long delayed the progress of the bicycle into popularity.

Various friends had bought automobiles and I was privileged to ride with them occasionally and not infrequently to finish the trip by walking home or taking the trolley. Still I was not discouraged. A motor that would mote as regularly as a locomo-

tive was coming, and I was to lose no time in becoming the proud possessor of that vehicle.

I fell into the way of haunting automobile storage places, garages and show rooms, and I found that some owners had employed experts to rectify the original defects of their machines and that they were able to make runs with very few failures. Then the bright idea entered my head that I might do better by purchasing a good second-hand automobile that had gone through the regenerating process.

The idea came like a revelation and I acted upon it at once.

I advertised in one of the automobile papers, stating that I wanted a second-hand motor carriage in good working order, giv-



INVERNESS CASTLE

ing some outlines of weight and price. Several replies were received and the most satisfactory one seemed to be from Mr. Benjamin, of Fernandina, Fla. Mr. Benjamin wrote that he was willing to dispose of a gasolene machine that had been very little used and was in first class condition in every respect. A photograph of the car was received and inquiries were made about Mr. Benjamin's financial standing. I learned he was a man of substance. Everything being apparently satisfactory, I sent a check for \$1,000 and directed that the automobile be shipped to Hoboken, where I resided.

Waiting for the arrival of that machine was one of the most



severe tests ever imposed upon my patience. The vendor appeared to be in no hurry to deliver the goods and railroad transport from the South was slow. But it came at last and as soon as it was delivered to the caretaker, I invited some friends to witness the glory of the start and we intended making a run through New Jersey, which was to close with a modest banquet.

How can I describe my feelings when the crate and covering were removed? Our eyes beheld a dilapidated wreck, a collection of tattered, moth-eaten cushions, shrunken woodwork with the paint worn off by weather action, rust-eaten iron work and a general appearance of hopeless decay. An expert called in to examine the motor declared that it was an inferior machine originally, ruined by reckless usage and neglect. After considerable work being expended upon it, the carriage was made to go erratically; but its trips gave too much occasion for walking and trolley rides to reach home. It became the ridicule of the small boy and the hackmen, so I gave it up as an imposition too annoying to be endured with the little fortitude I had left.

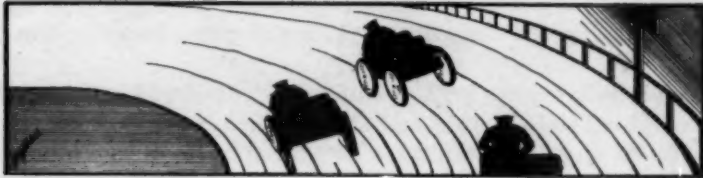
Then I determined to have revenge. I would sue Mr. Benjamin for imposition and have my thousand dollars returned. My lawyer dissuaded me from this course, saying that Florida was a long way from New Jersey, and suggesting that a Fernandina jury might not look favorably upon the claims of a New Jersey man.

I took occasion to write Mr. Benjamin my views of the transaction, and he no doubt found the language "painful and free."

The incident seemed closed, when one day it occurred to me that a man who once had the automobile fever was liable to be stricken with it again. I began watching the automobile papers for an inquiry from Fernandina, and sure enough it came within a few months. A first class automobile was wanted and there was no difficulty in identifying Mr. Benjamin as the would-be buyer. I prevailed upon a dealer to negotiate a sale by letter. After the sale was closed and the check received, my lawyer got the dealer to wire, asking Mr. Benjamin if the automobile was for himself. On a reply in the affirmative being received, my lawyer put an attachment upon the automobile and intimated to Mr. Benjamin that his old machine was ready to be returned, and that he would have to appeal to a New York court to have the attachment on the new one removed.

Mr. Benjamin wanted nothing to do with the courts, so he came to New York and settled.





## The Art of Speed Making

BY GEORGE E. WALSH

**U**NDER proper conditions and regulations, automobile racing is just as legitimate as horse racing, or any other form of speed contest, and it may be said that there are few sports which yield the participant more actual exhilarating pleasure than flying over a smooth, straight road or track in a machine built for this purpose. Horse racing is tame in comparison, as for that matter is any other means of locomotion, except possibly riding on a locomotive when trying to make up lost time in carrying the United States mails between two important cities. One might, indeed, find much in a ride of the latter kind to help him in preparing for racing an automobile.

The giant locomotive which is to make sixty to ninety miles an hour, with a train of mail and passenger cars trailing behind it, is the very personification of power and tremendous speed producing possibilities. But, as it stands at the station softly puffing and panting with suppressed emotion, one cannot realize the great amount of preparation made beforehand to get the big fellow in perfect condition for his race. For a full hour before the engine was turned over to the engineer, two of the best mechanics of the railroad company have been examining and testing every part of the huge machine. Every wheel, driving rod, nut, bolt, brace and lever has been examined to see if there was the slightest sign of imperfection. The rigid test has been carried so far as to have many of the nuts and bolts unscrewed and drawn to see if they were in good working order. After this inspection, the mechanics oiled every part thoroughly and filled the cups with sufficient lubricating material to carry the engine on her trip.

The engine was then run out of the yard, and turned over to the engineer and fireman; but these two men, instead of accepting the word of the yard inspectors, at once proceed to again go over all the important parts of the engine to verify the first examina-

tion. The engineer tests his steam valves and gauges, and runs the engine up and down the track, applying the brakes to see if all is well.

Then the journey begins. At first, the engine glides slowly and smoothly out of the yard and station, increasing its speed as it slides along without mishap. The engineer finds everything in working order, and he slowly coaxes his steed forward. Coaxing is probably the best word to apply to this, for an engineer treats his engine as an experienced driver treats his horse. A machine, in fact, requires delicate and appreciative handling to make it do its best. Jerk and start and stop it suddenly, and the chances are that something will give way, and while an accident may not occur, the best speed of the machine cannot possibly be obtained under such conditions.

The engineer rushes up-grade by firmly and persistently increasing the steam power, and down-grade he eases up the engine so that chains will not rattle, and the machinery urged onward by gravity will not get disjointed. It takes an expert engineer to do this well, and as a result the trip is made without mishap. From his position in the cab the engineer sees and knows nothing else except the immediate work on hand. He does not hear you speak to him; he pays no attention to novel sights on either side of the road. He is an intelligent machine, keyed to his highest point of efficiency, ready to respond promptly to signals, and to do the right thing in an emergency.

In automobile racing, either on a level, lonely, country road, where there is no danger of frightening horses or meeting pedestrians, the operator should copy closely after the engineer of one of our big railroads. He should know beforehand that every part of the machine is in perfect order. If the vehicle has not been tested and examined that day, it is dangerous to attempt high speed. Assured of its perfect condition, however, he should next know how to manipulate its machinery, so that no parts of it will be strained. The sudden turning on of power, or throwing on the heavy brakes without emergency cause, racks a machine terribly, and generally disarranges the smooth working parts somewhere. If the driver of a motor vehicle does not know how to ease up the machine in running down hill, and how to increase its power gradually in racing up an incline, he is not in a position to race, or even to speed his machine on the country road.

Manipulators of automobiles in our cities exhibit an amount

of ignorance and lack of skill that is heartrending. They attempt the spectacular so often that the machines are reduced to scrap iron all too soon. It may be showy riding to run the machine rapidly through an intricate network of carriages and pedestrians, and drive on the brake every few minutes to check its headway. Such a jerky method of proceeding is hard on the machine, unpleasant for those out for a ride and discreditable to the operator. It betrays his ignorance just as much as the jerky movement of the street electric car indicates that a new motorman is being broken in. The passengers soon realize that their lives are being intrusted to the incompetent hands of a beginner. The expert runs the car with the least amount of jerking and sudden stopping.

But to return to the racing automobile. Let us select a smooth country road where there is little or no driving or walking, and try our speed on it. There are many such stretches of a mile or two in the country where one can positively do little or no injury to the welfare or rights of others.

It is a pleasure to find such a place and to run back over it several times to test the powers of the machine. One should not try high speed over a strange road until after passing over it at least once. Many a road is very deceptive, showing ahead an apparently smooth, uniform surface, but on closer inspection revealing deep cuts and hollows, which are sufficient to wreck any machine running at high speed. But if one passes over the road, and finds it perfectly adapted to fast work, it will pay him to turn back, and run at a good speed, and then on the next trip over it let out the machine to its full power.

There is positive exhilaration in such a ride. You turn the power on slowly but surely, increasing the speed as fast as the machine is capable of developing it without straining. No vehicle can possibly utilize half its power when it is turned on suddenly. It is better to force the speed gradually, without once overstraining a single rod or piston. When under half speed the full power can be turned on, and the machine will climb rapidly upward in the swiftness of its travel until it reaches the maximum of its pace. Now the full employment of all the operator's faculties are demanded. He is inviting certain dangers which can only be averted by skilful handling and accurate decisions of judgment.

Nothing in all the different departments of outdoor sports trains the faculties to more acute activity than automobile racing does. The ground is fairly rising up ahead and dashing directly at

you in a most bewildering way. It is a sensation that appals many novices, and well it might. There is a species of automobile stage fright which attacks some, and fairly demoralizes them. Unaccustomed to the speed which they have almost unconsciously summoned their steed to exhibit, they become fascinated and demoralized by the swift movement of objects around. It is necessary to watch the narrow strip of roadway ahead, and this flashing up and past the eyes almost paralyzes the optic nerve. The deception which may follow causes one to lose control of the nerves. A slight variation may throw the car off the road and smash it to pieces.

In order to avoid this species of madness, one must accustom himself to high speed gradually; first, in a car guided by an experienced chauffeur, and then alone with the whole guidance of the machine under his care. One cannot simply ride a number of times with an expert guiding the flying vehicle, and then expect to be able to do the same thing himself. The novice may think he has grown accustomed to high speed, but suddenly in the very midst of the blinding gait he may become conscious of the fact that everything depends upon his gasoline power of control and guidance. This thought, for the first time, occurring, has caused a panicky feeling in the mind of more than one operator, and the resulting demoralization of the nerves and brain has been the cause of the accident which followed.

On the other hand, the driver who has trained his nerves and eyes to a keen appreciation of the dangers of great speed, finds the highest type of pleasure in speeding his machine, guiding it with unerring accuracy straight down the road, and making a line so unswerving that a bee in flying could not much straighter go. His nerves and muscles have learned to respond promptly and intelligently to the slightest deviation and change in the machine's movements. There is a sympathetic feeling between the flying vehicle and its human director which is difficult to explain, but is readily appreciated by an expert. Almost intuitively the operator knows when anything is wrong, or when the roadway ahead offers obstacles. Likewise there is a subconsciousness which seems to know instantly how to act in any emergency. Should some obstacle appear in the road or a difficulty of one sort or another unexpectedly intrude, the trained senses of the expert would instantly know how best to meet them, and how to avert an accident. The training

of the eye and hands in this way is not the least of the advantages resulting from running an automobile at high speed.

There is no blindness or lack of appreciation of dangers by one who has rightly learned the speed-making art. To the observer or uninitiated such high speed seems reckless, and a direct invitation to accident and sudden death. But such may not be the case at all. The engineer speeding along at sixty miles an hour is really in less danger than another who takes his slow local along at twenty miles an hour. Why? Because the latter has not been so careful in inspecting his machine; he has not prepared himself for risks, and so does not act so promptly in emergencies, and usually his engine is far from being of the best. The high speed railroad trains have far fewer accidents than the locals, for the foregoing and similar reasons. Likewise a high-grade, powerful automobile, built for racing, can be run at forty miles an hour under the skilful guidance of an expert on a road adapted to speeding without inviting nearly as much risk as the inexperienced driver invites when running an inferior vehicle at ten or fifteen miles an hour. The inexperienced driver may at any moment be confronted by dangers and accidents, and if he is unprepared to deal with them promptly and intelligently, he is likely to precipitate a catastrophe.

In the present condition of automobiling for pleasure and racing, there is entirely too reckless speeding by novices, which should be checked, since in nearly all cases where accidents happen they are due to inexperience and foolish ignorance on the part of those in control of the vehicle. Skill in any line of work or pleasure breeds carefulness. The best operators are the ones to take the least unnecessary risks. Yet, when the emergency presents itself, they are equal to the occasion. They are well trained then to take the necessary risk, and to come out victorious. There is something mentally stimulating in skilfully meeting and overcoming dangers, and the expert driver of an automobile who does this daily receives an education which makes the faculties stronger and more sensitive to impressions.

There are few drivers of experience who have not at some time when in control of an automobile experienced narrow escapes from accidents which they ever afterward remember vividly, and even shudder sometimes at the remembrance. Nevertheless, the intelligent management of the vehicle which carried them through the ordeal unscathed, is a source of satisfaction which they cannot forget. It has been one of the stepping stones in their progress



which they could not well dispense with. Indeed, all achievements must be paid for by some hard work, narrow escapes, or painful experiences. But the man who guides an automobile must learn his lessons with as little danger and discomfort to others as possible. To do this successfully he must begin cautiously, and not venture beyond his capabilities until his lesson has well been learned and severely practised.

## Story of Number 134

(Begun in September Issue)

BY NED WILLSON

SOME three days after the accident in the barn, there appeared at the Jackson House in Cinderella, a tall, slender individual, with sunset hair, somewhat flattened cheeks and a sad expression of countenance which betokened a dread of something which was likely to happen any minute. He inscribed his name upon the register as "John C. Nichols, Automobile Expert," and was assigned to the best room in the house, which as a special inducement boasted a fire escape landing, capable of being used as a balcony. After disposing of a hearty breakfast of ham and eggs, twelve-cent coffee and sour cream, he retired to his room and emerged shortly, dressed in leather from head to foot, while perched jauntily on the peak of his cap was a pair of the most hideous automobile goggles which could probably be found anywhere. Addressing the porter, he made inquiry, "Could you kindly tell me where Mr. SIRRUS P. JOHNSON lives?"

"Mr. Cyrus P. Johnson (accent on the Cy) lives up the street, the other side of Bull's blacksmith shop," replied the porter.

"Where's Bull's blacksmith shop?"

"Why, don't you know where Bull's shop is?"

"No; what the Dickens d'ye spose I'd ask for, if I knew?"

"Well, it's just a block this side of Jones's drug store," answered the porter.

"Oh, chuck it," was the impatient rejoinder. "Take this grip and show me the way. I don't know nothing about your blamed old town."

"Cost you a dime to make that trip, sir," said the porter, looking at the expert thoughtfully.

"Well, here's your dime, pay you in advance," and throwing him a ten-cent piece the man in leather forged on ahead up through



the one street of the town. It did not take him long to get his bearings as the blacksmith shop and the drug store were within a stone's throw of the hotel, and in fact the whole length of the main street could have been traversed by a good automobile between chugs. The porter, after trying vainly to rescue the dime from where it had rolled behind a desk in the corner, moodily brought up the rear grumbling audibly at the weight of the valise, which contained considerable metal in the form of tools.

Mr. Johnson was waiting expectantly and was standing in the door of his barn, with the machine pushed out where it would get the best light. The old radiator was soon replaced by a new one, which had arrived the day before, and during the replacement the conversation naturally turned to the accident and other features of automobiling. "Nice barn you've got here," remarked the expert casually in the course of the conversation. "My father's barn burned down in Xenia a while ago; burned my horse and three sets of harness; couldn't get 'em out anyway. Fire was pretty well along before anybody discovered it."

"How did it catch fire, incendiary?" asked Mr. Johnson.

"No sir, it was the longest time before we found out how that barn did catch fire. We figured this way and we figured that, and finally came to the conclusion that it was nothing more or less than a case of contagious congestion."

"Whopee! That's a good one! First time I ever heard of a barn having congestion, anyways, congestion that was contagious."

"Well, that's what Tim Oliver said it was, and he knows a good lot about fires and things of that kind; been to college and studied engineering and all that."

"Guess you mean 'spontaneous combustion,' don't you?"

"Well, maybe that was it, but what's the difference anyway? It's some darn fool thing I never heard of before."

"Say, did you ever meet that agent down in the city that I bought the rig of?"

"Yes; he was up to the factory for about a week; made out he knew all about automobiles. Used to tell so many lies that the manager called him the 'Chief Procrastinator,' and I guess the name will stick to him at the factory because they never call him anything else now."

The word was a new one to the oil man, so he wrote it down in order to consult his Webster at the next opportunity.

"Say, what's the biggest automobile you ever saw?" asked Mr.

Johnson. "I saw some big racing machines down in the city, but none of them was big enough to carry over four persons. Do you ever make automobile busses and such things as that?"

"No; the biggest thing I ever saw was a tally-ho that came through the town the other day. It had three big seats and a fellow up in front was blowing a long horn something like a trombone, only not so crooked."

"Cally-ho, cally-ho," repeated the oil man, "that don't sound just like the name; are you sure that's what they call them?"

"Why sure. Guess I know what a cally-ho is."

But the other was still in doubt, and made a further memorandum for the dictionary. Just then a red-necked farmer boy rode up on a spavined bay mule. After the usual "howdy," the oil man asked him, "What you lookin' for Bill, an automobile?"

"Don't know as I ever seen one."

"Well, you better look out, there's one broke loose here in the barn," and with a wink to the expert, who had just started the engine, he turned again to the boy and continued: "You better look out; she's snortin' and puffin' like a mad bull," and just then he jumped into the seat and whispering to the operator to "make her snort," the latter threw out the switch and immediately throwing it in again secured several loud muffler explosions. The mule, which up to this time had shown no signs of life, threw its ears forward and with a snort cleared a six-rail fence, leaving the witless farmer boy sprawling on the ground. He scrambled to his feet, and with a face like a snowbank, flew up the road crying, "Help! help! The devil's comin' sure!"

The pair of mischief-makers were so convulsed with laughter that the automobile very nearly followed the course of the mule, and it was only by a quick turn of the wheel that the chauffeur avoided an accident.

"Let's see you make her hum," said the oil man, as they started up the road. "You can't go too fast to suit me." Nothing loath, the operator threw in the high gear, and with the throttle wide open and the spark adjuster at the last notch they tore up the road at a terrific pace. The thoroughfare they had chosen was a hilly one, and Mr. Johnson was more than satisfied when the reckless operator rushed down the grades without slacking speed, except when he came to a turn. The second speed was called into requisition frequently in order to climb the hills, and for a space of some seven or eight miles it was used as much as

the high gear. However, the hills were finally passed and a good stretch of level road lay before them. They had just got up to a good speed when they saw coming toward them a man and woman in a buggy, the man waving frantically for the automobilists to stop. The red-haired expert throttled his engine down so much that it stopped entirely. The horse by this time was prancing and backing, and threatened to overturn the occupants of the buggy in a ditch by the side of the road. Nichols jumped from the automobile and caught the horse by the bridle. Stroking him gently on the nose, he led him by, the occupants of the buggy in the meantime not knowing whether to thank him or to abuse him for daring to use an automobile on the highway.

Returning to the machine the expert started the engine and threw in the gear and then the engine clutch. Immediately there was a chug and a grunt, and the engine stopped as if it had run against something. Expressing his opinion of the circumstance in words which would not appear well in type, he started the engine and threw in the clutch again with a similar result. With a few more unprintable remarks he sat down on the step, and, removing his cap, thoughtfully rubbed his auburn hair.

"Well, now, what's broke?" asked the oil man.

"Damfino," was the reply, "unless she's got a hot box," and with a sigh of resignation the expert opened his bag of tools and started to investigate. He knew there was nothing the matter with the engine, as it had started promptly both times, so he examined the transmission. On removing the top of the transmission case, he found that the second speed gear had lost its set screw, and that the set screw was lodged in between the teeth of the two gears which mesh for the second speed. It had apparently just found its way to its position. As the gears were of steel it had simply bent them. The set screw, however, was too badly bruised up to be of further service. It was also necessary to file the teeth of the gears so that they would run.

On examining the key the expert found that it had been driven in tightly and it was apparent that the set screw was unnecessary, as there was no danger of end motion on the shaft, since it was the other gear that was moveable. He found the transmission case had very little oil, and having some cup grease with him he daubed the gears with that, and then poured some oil in the bottom of the case, so the gears would splash it about. "Them's nice bearings," he remarked to the oil man as he was putting the case together.

"Them's what they call Foster bronze. Tell ye what, if you get that in the bearing there's no wear out to it."

"Foster, Foster—seems to me I heard of something like that. No, that was phosphor-bronze, is that anything like it?"

"Oh, yes, that's what I mean, phosphor-bronze."

Just then there was the toot of an automobile horn and a big surrey with four passengers came sailing down the road, the driver calling out as they went by and asking if they needed assistance, and Nichols, shaking his head, they went on their way amid a cloud of dust. "What make of carriage is that?" asked the oil man, casually.

"Oh, that's a James-Apperson carriage; they're great. Jump in and we'll see if we can catch 'em."

Getting a good start this time, they were soon in full chase, and seemingly gaining slowly on the car ahead. But appearances are often deceitful.

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### Rus in Urbe

The rosebud bends to the balmy breeze—

Bang, bang—bang, bang!—

And pouts her lips to the kissing bees—

Hoi! Go ahead there! Whang!

The pale, clear star, chaste and cool—

Clang—clang!—Clingity—clang!—

Kisses herself in the mirror-pool—

Fsshssshssss-bom! Kerrackety—SPANG!

Softly the silvery twilight falls—

Whack—clang! Thwack!—clang!—

And the moon steals into the silent halls

Of—Toot, toot! Hoi!

Whoy! What's the matter?

Hullo! Toy-hoi! Yow! Crash!

Jang, jang—bang, bang!

Fzzzzzz! Bing, bang!

Rickety-clickety jang!

Jang, jang—bang, bang!

Bang—bangity bang!—

MEMORANDUM.—Finish this when that idiot out there on the road in front of my house who is now trying to make temporary repairs on a motor vehicle succeeds sufficiently for it to take him out of my hearing.



IN making the tour we selected the most attractive and interesting scenes we could find for a day's run; but our objective point was the region where the forefathers of Robert Burns had lived and fought and toiled and died for many generations. The route out of Drumtochty glen brought us past several romantic looking villages and hamlets and through a beautifully diversified country, amidst finely cultivated farms traversed by roads that would delight the soul of every automobilist.

We had been following a route celebrated almost from the time of the Roman invasion, and no doubt partly made by those enterprising pioneers of civilization. Many great personages, clattering armies and imposing cavalcades had traversed these highways intent on intimidation, peace or war, mostly the latter. It was the favorite artery between England and the north of Scotland and was much traveled, especially in the fearful times that preceded the union of the crowns of England and Scotland.

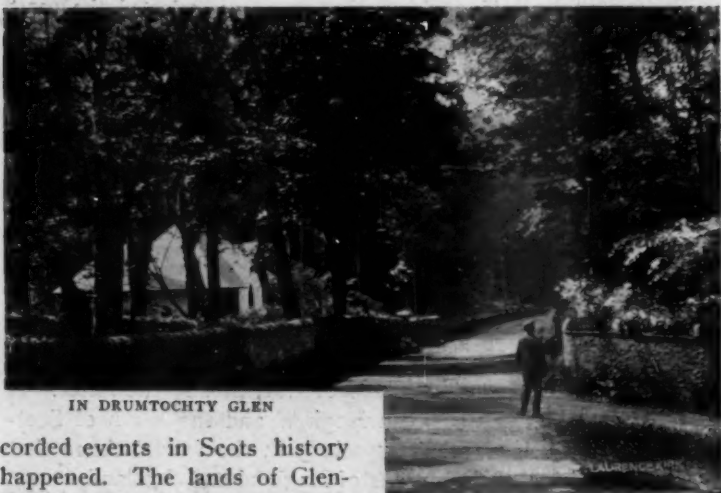
Through these woods, moors and glens once marched a small army that brought deep woe to Scotland, for it was escorting King Edward I. of England, at a time when the liberties of Scotland were more nearly crushed out by the power of England than they ever were afterward. That arrogant monarch made a tour through the greater part of Scotland, receiving the homage of the obsequious barons and of the gentry and clergy, but he received nothing but curses from the common people, who a few years afterward formed the sinews of war that vanquished his son's army at the battle of Bannockburn.

Emerging from Drumtochty we pass through the village of Auchinblae, built on a steep hillside, but picturesque withal. Here



on a hillock, about sixty feet high, stands the parish church of Fordoun, where traces are still pointed out of the shrine of St. Palladius, said to have been built by monks from Ireland in the fifth century. It is certain that the place was in great odor of sanctity as early as the tenth century. It is said that King Kenneth III. was on a pilgrimage to the shrine of St. Palladino when he was murdered by Queen Finella.

Arrived at Glenbervie, another wooded valley, where a fine trout stream is found passing down from the Grampian Hills beyond, we are in the heart of the real Land of Burns and in a district studded over with buildings and places where many re-

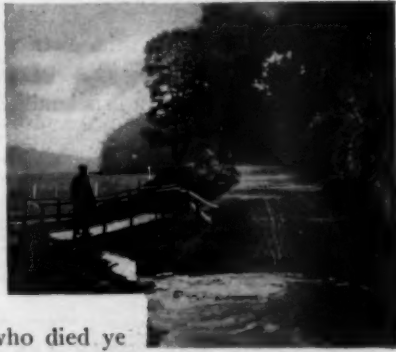


IN DRUMTOCHTY GLEN

corded events in Scots history happened. The lands of Glenbervie long belonged to the Douglasses. A son of the Sixth Earl of Angus, nicknamed Archibald-Bell-the-Cat was the first Douglas to hold these estates, and the family must have been proud of the nickname given to their ancestor, for it is recorded in a Latin inscription in a wall of the church now in ruins. The origin of the story was that the turbulent nobles of Scotland, whose principal pastimes were quarreling and fighting, became jealous of plebeian favorites of King James. The nobles were anxious to hang the favorites, but in a meeting held to take action the question arose who will bell the cat? I shall bell the cat exclaimed Archibald, Earl of Angus, and under his lead the favorites were hanged.



In the churchyard shown there were several tombstones indicating the resting places of several Burnes's who were ancestors of the poet, Robert Burns. On one of the monuments, the horizontal tomb to the right, is the inscription "Here lyes the body of James Burnes, who was Tenant in Brawlinuir, who died ye 23 of January, 1743, Aged 87 years."



FORD AT THE BURN

There is not the least doubt that the poet's genealogy can be traced directly from the tenant of that tomb. To use the scriptural method James begat Robert, Robert begat William and William begat Robert, the poet, and one of the most celebrated men Scotland has produced. The James Burnes of this tombstone was the great grandfather of the poet.

This district of the Mearns is full of names that belonged to the Burnes family and they were variously spelled, comprising



THE GLENBERVIE CHURCHYARD—WHERE BURNS' FOREFATHERS REST

Burnas, Burnis, Burnasse, Burness, etc. The origination of the Scots Burnes's came to the district probably in the twelfth century at the invitation of King David I., who had been an English baron, and brought many English families with him for the purpose, no doubt, of exerting a refining influence of the Scots. Robert Burns and his brothers changed their names from Burnes to Burns, which was giving a plebeian turn to a name which for many generations had been held by men of high degree. There were several noblemen named Burnes in Kent after the Norman conquest and several of that name are mentioned as holding high estates in different parts of England and France.

Those who settled in the Mearns were at first landowners and then they became farmers and cottars. Unfortunate political affiliations no doubt pulled down the condition of the family. Of course, they took part in most of the conflicts that touched the Mearns. They appeared to be supporters and followers of the Keiths, who were Earl Marischals of Scotland. These Keiths were devoted to the Stewart kings and they took an active part in several Jacobite rebellions, which brought them to poverty and entailed ruin upon most of their followers.

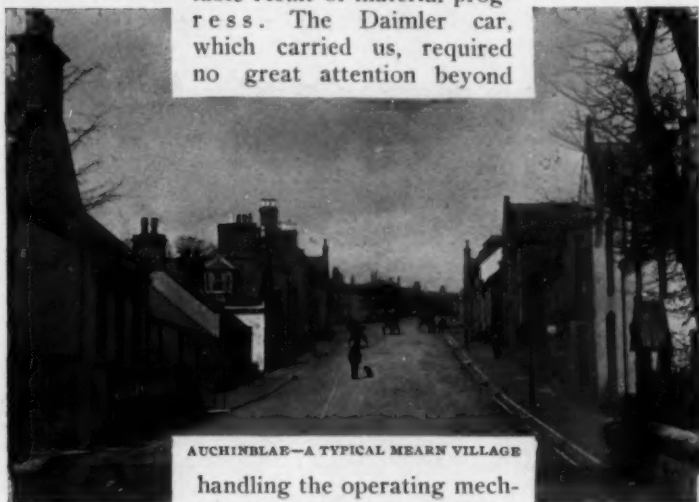
Writing of the misfortunes that brought down his father to the condition of a gardener, Robert Burns says: "My ancestors rented lands of the noble Keiths Marischal, and had the honor of sharing their fate. I mention this because it threw my father upon the world at large. They followed boldly where their leaders led and welcomed ruin and shook hands with infamy for what they believed to be the cause of their God and their King."

In traversing the heather covered hills and mountains in Scotland, now devoted to deer and sheep raising, we frequently find the ruins of small farm houses where a hardy population was sustained in the days when small holdings were the prevailing condition of farming in Scotland. The men nurtured in these glens were the forces which made British arms triumphant in every quarter of the globe. We cannot help feeling that Goldsmith's lines apply to the case:

"Ill fares the land, to hastening ills a prey,  
Where wealth accumulates, and men decay;  
Princes and lords may flourish, or may fade,  
A breath can make them, as a breath has made;  
But a bold peasantry, their country's pride,  
When once destroyed, can never be supplied."

The heart sympathizes deeply with these sentiments, even if the head reasons them to be impracticable. The change from the small holding to the large farm, which began about a century ago, has reduced the sturdy peasantry, but has produced scientific culture of the soil. The force that came from accumulated wealth taking hold of farming forced out the small operator, but it has increased the product of labor. The same tendency has extended into all other lines of industry, the trusts being its latest manifestation. However much we may dislike the power of great aggregations of wealth, the philosophical man accepts it as the inevi-

table result of material progress. The Daimler car, which carried us, required no great attention beyond



AUCHINBLAE—A TYPICAL MEARN VILLAGE

handling the operating mechanism. When pushed to

speed it made between thirty and forty miles an hour very comfortably, but most of the trip was done at about twenty miles an hour. The village and county authorities pay no attention to the speed made by automobilists, and as we had a chief constable in the party, who was prepared to testify that we obeyed the law, there was no cause for apprehension.

I rode considerably on motor cars in other parts of the country, and I noticed that the greatest restrictions of speed were manifested by village and county constables in England. In Scotland there is very little annoyance experienced. Through the courtesy of Mr. S. F. Edge, the famous autocar racer, I enjoyed the privilege of riding through some of the most crowded streets

in London. The motorist was wonderfully skilful and twisted through the crowd of vehicles at speeds unknown to horse vehicles, and when a clear way for a block or two he rushed along at a rate which would have brought him within the clutches of the law in a great many country villages where constables make a business of arresting automobilists.

About Coventry I had the same experience and it was the same in going to an automobile race which I attended near Nottingham. The motorists seemed perfectly free to speed up in towns where the streets were clear and their progress in the open country was a series of spurts, where a couple of constables might likely be found lurking with malice aforethought.



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### Official Conservatism

Disgruntled Tourist (trying to push a mud covered automobile over an alleged country road)—“This is what you call road making here, is it? Scraping the loose dirt and stones from the sides of this cowtrack into the center of it and then leaving it there to be cut into ruts by farm wagons!”

The Farmer—“Young feller, I’ve been Highway Commissioner for this township twenty-seven year, an’ I learned road makin’ from my dad. He had the office ’fore I did. Do you reckon as how you kin teach me anything about it, mister?”

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### Unaccountable.

“Papa, there’s one thing about those fairy stories that seems queer.”

“What is that, Johnnie?”

“Whenever the fairy tells people to make three wishes, they never wish for an automobile.”

## Some Unusual Tire Tests

BY A. F. SINCLAIR

**A**LTHOUGH these trials terminated about the middle of October the awards have not been made known at the time of writing, though sufficient information is at hand on which to form a fairly probable forecast of the results.

The trials were of the most rigid and searching character, and although the test of riding over broken glass suggested by Mr. E. Midgeley, the owner of one of the sets of competing tires, was not included, as reported, in the ordeal, the tests were of a nature sufficiently severe to discover any defect or weakness in a tire no matter how trifling.

Twelve sets of tires were entered, but one set each of Martin's and Goodyear's did not start. Those competing were four sets of Dunlop, two sets of Maison Talbot and one set each of Collier-Twin, Martin, Goodyear and Midgeley, the last being an experimental tire, for which no award was desired.

The original distance to be run was 3,000 miles, but at the end of that distance the duel between a set of Dunlop and the Collier was so even that the judges ordered the test to be continued 1,000 miles further. The competition was open to various kinds of tires, but only the ordinary pneumatics, with the exception of the plate armored Midgeleys, entered.

The cars loaded were required to weigh 3,360 pounds and to be of at least 10 H. P. Each car carried two observers, one appointed by the A. C. G. B. & I. being the official observer, and another, nominated by a competitor, the latter not to ride on a car fitted with tires belonging to the firm by whom he was nominated.

One of the Maison Talbot sets dropped out on the fourth day of the competition, the Martin set on the twelfth and the Goodyear set on the sixteenth day. The remaining seven continued till the concluding day of the regular runs, the 8th of October, when three of the sets finished the 4,000 miles, the others having various distances to make at which they had lost during the regular runs from car failures. These distances were all run off by the 14th of October, except the arrears of the Midgeley set, and in their case the owner informed the committee that he did not intend to finish the distance.



The system of marking adopted was to record one mark as lost for every minute or part of a minute spent in tire inflation or repair, whether in the official garage or on the road. The tires were, of course, in charge of the club throughout, the cars returning to the appointed place of storage each night. At numerous times during the contest the tires were photographed in various positions, and at the conclusion of the test the tires became the property of the club to be cut up and further examined.

The best record for covering the 4,000 miles, and one which only serious dilapidation of tires at the conclusion of the distance would justify the judges in ignoring for first prize, was that of the Collier-Twin set, which only lost 45 marks, 25 of them for substituting a new inner tube and 18 for pumping at various times, the other penalties being for extracting nails. This is a remarkably fine record for pneumatics, and whatever the result of the judges' ultimate conference, it is one which will give the Collier tires a well deserved advertisement.

The next in order of merit, with nearly twice the number of lost marks, was one of the Dunlop sets with a score of 87 points against them, 51 of which were taken up in changing two inner tubes, 32 were for inflation, a few minutes at a time on various occasions, and four were used in extracting nails. All four Dunlop sets finished the 4,000 miles, although one of them had a somewhat poor record, losing 322 marks, while another lost 152 and the remaining set 102 marks.

The Maison Talbot set had the worst record, with a loss of 698 points. Each car carried two spare tires, that is to say, six tires were selected by the judges or their nominee from the makers' stock, and all six could be used in the competition.

The Midgeley set, after doing well in the early part of the contest, lost marks heavily toward the finish, and after introducing a seventh cover, while running off arrears of mileage, it was decided not to finish the distance. The set had then lost 199 marks. The value of these trials is discounted to some extent by the absence of the leading Continental tires, such as the Michelin and the Clipper-Continental makes, but their absence may have been a sound diplomatic move by the manufacturing firms, for it is improbable that either of those mentioned would have done better than the Colliers, and if they did worse they would simply be giving their British market away.

Glasgow, Oct. 8.

## Fifteen Hundred Miles of Fun



**D**OCTORS do not like to take their own medicine.

Can you blame them?

When, however, you run across that very rare kind of a physician who has faith enough in the remedy he prescribes for others to take it himself, don't let him get away from you, because you have the man who

knows what he is doing, and proves it.

Many makers of motor vehicles are not altogether unlike doctors; they are willing enough to sell you or me automobiles, and guarantee them as being the best thing in the world for touring, but they are not quite so willing to go touring in the vehicles themselves. Mr. Volney S. Beardsley, treasurer and manager of the Beardsley & Hubbs Manufacturing Company, not only builds touring carriages, but he tours in them.

In company with Mr. and Mrs. Sydney L. Palmer, in the 10 H. P. vehicle shown in the accompanying illustrations, Mr. Beardsley's party spent four pleasant weeks in thoroughly exploring Ohio, in which State, at Shelby, Mr. Beardsley has his home and factory. During the trip no attempt was made to see how fast the party could travel, but rather how comfortably. The result was that the mileage was but 1,500 miles, but when it is remembered that this was done over roads more often bad than good, and in weather not always favorable, the performance is a highly creditable one. When the conditions were favorable the party were surprised to see how easily 408 miles were covered in five days' time.

So enjoyable was the whole trip that already Mr. Beardsley is planning a new and more extensive one for next summer. The scramble among his friends as to which shall be the lucky ones to accompany him next time has already become so embarrassing that Mr. Beardsley may in the end be forced to lead a perfect caravan of his carriages so as to prevent all sorts of unpleasant things resulting from those he will otherwise have to disappoint.

The incidents of the trip were many, but none was more amusing than the one which is connected with a little dinner party en

route. With appetites well sharpened the party had at the end of a forenoon's run arrived at a rural homestead of such prominence as to warrant the belief that the larder thereof was well stored. Coming up to the house Mr. Beardsley's party was met with anything but the heartiest of welcomes. The lady of the house evidently had serious doubts as to the social as well as the financial standing of any people who went riding around the country in an automobile, and it required no small amount of persuasion on the part of her self-invited guests to win her over to preparing a meal for them.



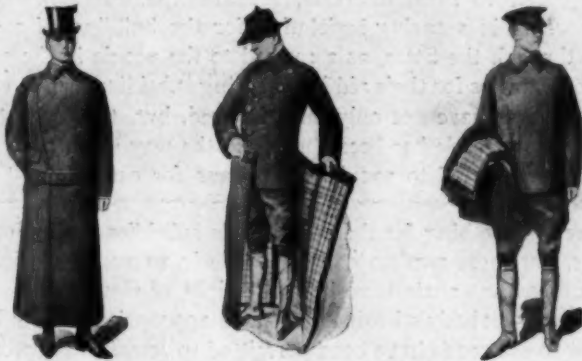
Finally the ladies of the party succeeded in doing this, and the good dame vanished in the house, carefully closing and locking the front door behind her. The tourists, thus shown that their places were outside that particular domicile, whiled away the time as best they could until the housewife finally opened the door and beckoned to one of the gentlemen in the party to approach. Then she confided to him that the dinner was ready, but she "reckoned they could eat it just as well outdoors" so he must help her carry the table out there for that purpose. This was done, and the meal enjoyed all the more from the nature of the surroundings. Prejudice

is not easily killed, however, and as the party drove off, thanking their hostess for her kindness, she was carefully examining the money which had been paid for it, with an air of grave doubts as to its genuineness.

The small family gathering shown in the initial cut is an example of what Mr. Beardsley considers about all one of his carriages should be called upon to accommodate at one time. Mr. Beardsley does not advocate quite so many passengers when touring, as he has an idea that there is not quite the comfort with so many as where a lesser number are carried.

### Capable of Being Curtailed

THE tail to a man's coat has often been used as proof that women are not alone in their use of garments in which utility has been lost sight of in an attempt to secure style. In the case of a driving coat, however, the tails thereof have a real practical value since they act as a lap robe might in keeping warm the legs



of the driver whose limbs are prone to quickly suffer from the cold owing to his exposed position and the cramped one as well which he is forced to occupy.

The illustrations herewith tell the story of a very ingenious effort on the part of an English tailor to produce an automobile coat, which can be made all things to all men. As a rule, the attempt to make a chest of drawers by day a comfortable bed by night fails in both directions; its drawing qualities are nil while its bedding ones are no better. In the present instance, however, the convertible idea has been worked out in a fashion which apparently leaves little, if anything, to be desired.

## Prospect for Better Highways

BY ANGUS SINCLAIR

**T**HE rural, commercial and industrial interests of this country have been so much accustomed to depend upon canals and railroads to transport their products to market, that they have habitually neglected the arteries over which nearly all traffic originates, viz.: the common highway. Farmers and other people living in the country are more interested than other citizens in the construction and maintenance of good highways; yet until a few years ago they displayed obstinate antipathy to help any movement in favor of improving the country's highways. In our great States which are expected to take the lead in all movements for the public good, New York is the most influential; but the legislators of that state have habitually wasted so much money upon the Erie canal that nothing was left for other internal improvements, and public highway interests have been among the worst sufferers. This is particularly unfair to rural interests, because the canal promoters agreed to help in securing legislation for the building of a great highway through the State, as a reward to the people in the southern tier of counties for their aid in obtaining subsidies for the canal; yet the promises have not only been ignored, but, to the contrary, every obstacle possible has been thrown in the way when any movement has been started to provide the means for carrying out road improvements.

There was nothing for the politician in subsidies for improving highways, but there was no end of boodle in an appropriation for canals and so the canals have kept the right of way to the public purse. It was nobody's business to push appropriations for highways, and so the roads have been permitted to remain in deplorable condition.

The first systematic movement made to improve the country's highways was originated by bicyclists when that form of amusement was an active living force. The bicycle fantasy has passed, but it has been succeeded by even a stronger movement, that of automobiling, and the people interested in horseless carriages are agitating strenuously in favor of improved highways and the influence they exercise as a class promises to produce important results. All they need is the co-operation of farmers and others interested in having good roads to haul their produce over.

The Automobile Club of America has inaugurated a move-



ment which is calculated to effect a revolution in inland transportation if it meets with the support it deserves. A few months ago Gen. Roy Stone, who has made a special study of road making, in an address before the Automobile Club of America, strongly advocated the use of steel plates for making highways. His arguments were so convincing that Mr. Charles M. Schwab, president of the United States Steel Corporation, offered to provide at his own expense steel sufficient to lay a mile of the roadway recommended by Gen. Stone. One block of that steel has been laid in Murray street, New York, a street noted for its heavy traffic and the indications are that it will fulfil all the promises made for it, many as they are.

The plates are twelve inches wide and are perfectly flat, with the exception of a slight ridge on each side to act as a slight wheel guard. They are laid on cement, are made continuous by riveted joints and are set 4 feet, 6 inches from center to center, making them a satisfactory width apart.

The remainder of the mile will be laid in different places near New York, where they can be readily examined by people interested in highways of this character. Gen. Stone says that this style of roadway can be laid down for about \$4,000 a mile. The work has been done by the influence of automobile interests, but it will probably be found of greater value to other users of public highways.

Every person familiar with teaming in cities is aware of the great reduction of wheel resistance that results from the wheels of a wagon being run on the plates attached to street car rails. If the day ever comes that the country roads are laid with steel runways, the saving to people who have to haul freight over the roads will be immense. Experiments made by engineers of high reputation have shown that a horse can haul on an iron or steel track 54 times the load it can haul in sand, 36 times as much as on an earth road, 33 times as much on a stone trackway, 25 times as much on a plank road in good order, and 9 times as much on a good macadamized road. Most of the roads that farmers have to haul their produce over are earth roads, so the change to steel would increase the haulage eighteen times. The introduction of such an improvement ought to draw the cordial co-operation of every person who wishes to see our agricultural communities prospering, as they should prosper.

## America in Ireland

**T**HE illustration herewith tells the story of an unusual street condition in Belfast, Ireland, which, bad as it was, did not prevent the little American Oldsmobile seen in the foreground from proceeding triumphantly on its way. The gentleman who is enjoying this unusual form of urban automobiling is Mr. J. Brown, F.R.S., who in 1896 imported the first motor vehicle into Ireland.

The magnificent building which can be indistinctly seen in the background is Belfast's new City Hall, which, when completed,



is to be a model of its kind. Mr. Brown says that the streets of Belfast are not always as they appear in this picture, which was taken while the streets were flooded from an unusually heavy rainfall. Under the ordinary conditions which prevail, automobiling in Ireland is a pleasure which none enjoys or knows more of than Mr. Brown, who has himself designed and built a very original vehicle for his own use.

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When the scorcher asks you what you think of him, fool him and give him your honest opinion.

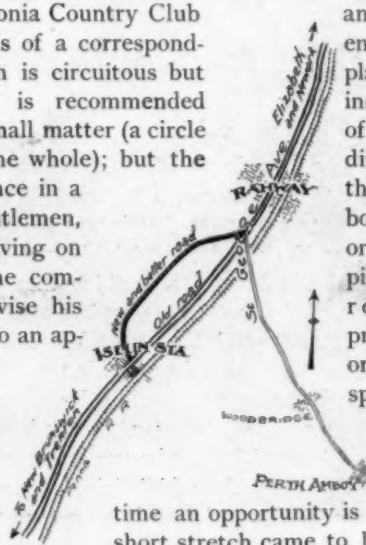
## When "Doctors Disagree"

It is a curious fact that the two instances in which, during the present year, the road directions as given in THE AUTOMOBILE MAGAZINE tours and maps have found critics among our readers, have concerned the identical portion of the New York-Philadelphia route as published in the October number. Both have agreed in questioning the desirability of running from St. George avenue, just beyond Rahway, to Iselin station (en route to Metuchen and New Brunswick), by the shorter but poorer highway alongside the tracks of the Pennsylvania Railroad. The new and better-surfaced way, past the Colonia Country Club and (in the words of a correspondent) "a rock road which is circuitous but by guideposts," is recommended. Geographically it is a small matter (a circle would enclose the whole); but the difference is of large importance in a

These gentlemen, mobile tourists living on are right, and the compiler is pleased to revise his which means also an action in the reaction and corrections, in the recommendations. At the same time just how that

was—an item now of some passing interest in view of the discussion aroused; otherwise a mere incident of the problems that confront the compiler who is doing at all events his own original work.

One September afternoon the writer approached from New York way the place where this alternative presents itself. It is a mile or so beyond the city of Rahway that St. George avenue carries over the four tracks of the Pennsylvania Railroad, to Woodbridge and Perth Amboy. Bound for Philadelphia, one would in no case make that crossing, and the choice is between the shorter-poorer road that goes almost due south from this point (along the tracks but on the right hand side) and the better-longer



and golf grounds, (ent) following the plainly indicated instead. Geographical difference may be through trip. both practical auto- or near that line, piler of the route reference copy, appropriate record of our information, as person- edged to each.

way that turns out and up to the right; the both joining at Iselin station.

Himself a stranger there, the writer stopped for a chat with the veteran who guards the railroad crossing at that point—one whose daily observation would be likely to be of value in guiding a locally unacquainted tourist's decision. He said the outer road was the better one and as such invariably taken by those who knew and understood its common terminus with the other at Iselin. But its first appearance was that of a detour, since no sign explained, and in consequence the majority of travelers followed straight ahead and took the road as they found it—this in most cases without any serious trouble.

Hesitating to incorporate this apparent detour into the New York-Philadelphia through line, unless absolutely necessary, we were undoubtedly in a frame of mind favorable to the other; and this harked back to another incident bearing on the case. Shortly before we had received a communication from New Brunswick asking our aid in demanding the improvement of this short stretch, in which occurred something to the effect that it was the worst two or three miles between New York and Philadelphia, and a "disgrace to the State of New Jersey." Instead of rushing into print without personal investigation of the matter, we made a mental note of the appeal and were going over to look it up. We did go over it on this occasion—not satisfied with it, of course, but quietly wishing to ourselves that we might never see worse. Its directness and perfect plainness, backed up by what the guardman had told, by the memory of the impassioned demand for the improvement of this stretch as an integral part of the New York-Philadelphia run, and our experience with it, led us to give it the preference over the other. There was the further consideration that improvement was working that way and might at any time make that bad stretch good, in which case our own opinion would be that it, not the outer road, would be a logical fraction of this through line. We had faith, for one thing, that the road-enterprise of New Jersey would act before an end-to-end revision could be made in *THE AUTOMOBILE MAGAZINE*.

In the light of these facts, the result may not be so strange after all—which we say after expressly stating our intention to use the substitute stretch in our information and correspondence service until a new result can be had. To decide these things for his particular and present purpose is often a vexatious matter for the compiler; and yet he would much prefer to make frequent revision of his own

opinions and directions than to deprive any automobile tourist of comforting facts and easier detours. Our thanks in this case are due especially to Mr. Louis A. Voorhees, of New Brunswick, N. J., and Mr. Louis I. Whitlock, of Elizabeth, N. J. ROBERT BRUCE.

### The Cup Lifter's Stable

THE challenger for the America Cup is not only an ardent yachtsman, but is also an extensive owner of automobiles as well as a most skilful driver thereof. Until quite recently he owned nothing more powerful than a 12 H. P. Daimler, which



one could surmise to be sufficiently speedy to cope with a twelve miles an hour limit, but he has now gone in for the 22 H. P. car here shown, which has been built by the same firm on very much the same lines as those owned by King Edward. Besides the two Daimlers he owns two 10 H. P. Panhards and an Oldsmobile, which little American stands particularly high in Sir Thomas' affections.



Sir Thomas never does anything by halves, no matter what his particular hobby for the moment may be, hence it is but natural that no pent-up Utica of automobilism should be his. In selecting a light vehicle Sir Thomas struck it right the very first time, and hence it is that his little American carriage heads the procession of his motor stud. When it came to choosing a satisfactory heavy vehicle, the doughty cup hunter seems to have been far from positive and hence it is that the number of his automobile purchases has steadily increased until even the picture herewith shows only a portion thereof.

Essentially a boomer and a prince of good fellows, Sir Thomas Lipton rarely fails to add to the popularity and the success of anything he goes in for, and in the present instance automobiling is a gainer by having won his adherence.

So confirmed a cup-lifter has the genial Sir Thomas become that it is said he has declared he will be found represented in any team which might be sent to this country to win back the Bennett



cup should American automobilists succeed in wresting it from its present British holders. In this connection it is of interest to remember that in presenting the cup its donor, Mr. James Gordon Bennett, sought to make it to the automobile world what the America cup, after which it was modeled, is to the yachting world.

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As many who have tried to travel the road in an automobile have learned, invention is generally a rough way to Easy Street.

# THE AUTOMOBILE MAGAZINE

*A Live Journal for all interested in Motor Vehicles*

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## Late Autumn and Winter Riding

**B**OAST as you will of the pleasures and benefits of automobile touring in the blossoming spring and the full tide of summer, and your enthusiasm will echo to the craft at large. Make it the same open country, and November or December, and fewer will understand the attraction of it, or be ready to swing into line at your invitation. And yet it is a four-season sport if ever there was one. Only the choice among suitable days narrows down, and you cannot pick out just the ideal conditions for a run so closely. There are more things to overcome, extra precautions to take and—there's the usual rub—a different kind of mettle to be tested.

One who wishes to thoroughly initiate himself into late autumn and winter riding should make up his mind to be deterred from his purpose by nothing short of impassable roads or other circumstances unfavorable to comfortable out-of-door work. Auto-

bilism—here in the North anyhow—has no special need for the enthusiast who rides every day during the winter. But that sort of enterprise which keeps the vehicle in commission throughout the year, and thus ready for any chance opportunity for its use, is not only commendable in itself but of real value to the sport. Conversely, to put it away at first snowfall, like a fair weather yacht or houseboat, is scarcely a willing testimonial to the all-around capabilities of the best modern machines. Given hard roads, ample supplies and good all around equipment and the operator of an automobile is in better condition to enjoy some exhilarating outdoor work in the winter months than any other road user with the possible exception of the traveler on runners. But between these two there is not and cannot well be any serious rivalry.

The parks of our large cities—particularly on the seaboards East and West—are scarcely less than individual riding systems in which there is much to enjoy when the open country is actually bleak and uninviting. The city with all its comforts and facilities is always near, and especially at dusk the lights on every side lend a cheery aspect to your return home from a spin along the parkways and boulevards. Of the suitability of the nearby and suburban roads one can usually judge from the conditions of the streets near his home and the promise of the sky above; but the real country highways may be a somewhat different matter. It often happens that a trip, say from New York to Tarrytown or Peekskill, means a change from perfectly dry going to light snow; but if one cannot carry his climate with him he can at least prepare for such changes as are likely to be found within the radius of one day's out-and-home trip.

Perhaps no class of automobilists has given as much attention to the practical side of all-year riding as those physicians who have adopted the motor vehicle in making their professional rounds. With them it is a matter not of sentiment but of business—economy of time and readiness in ever-present emergencies. In deciding quickly upon which way to go in each separate instance, they are apt to judge sharply of just what the automobile can be relied upon to do under the conditions of the hour. If those who are prone to underestimate the reliability of the machine will only take the trouble to note what the doctors, especially in the larger cities, but in a way also through the country, are doing on an average of 300 days in the year, they will be surprised. In other words, the great body of owners and users may get much more out of

their vehicles in the way of all-year service than they are apt to think. And this, too, without any marked advance in operating expense and repair charges, if care and good judgment be used.

In this climate we are sure of at least a few days of genuine Indian summer weather, and advantage should be taken of this opportunity anyhow for some spirited outdoor work. At no time are the highways likely to be in much better condition, nor should the zeal of the automobilist be less pronounced than in May or June. This bit of summer redivivus has in store not only some rare good treats of its own, but rightly improved, it cuts down by so much what the unventuresome and less self-reliant call their "closed season."

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## Weakest Link in a Steam Carriage

**T**HERE is a saying in connection with mechanics that the weakest link is the strongest part of a chain. This sounds like a paradox, but it is self-evident that no apparatus or machine is stronger than the part most liable to break.

The development of machinery has been a tentative process, in which experience has been the guide that provided the means of overcoming failure. An engineer would design a machine, and by calculation provide what he supposed to be the necessary strength; but some part would break or fail unexpectedly, and in succeeding machines the parts that failed would be strengthened or simplified.

We have been led into this line of thought by experience with a steam automobile. As it left the makers, the machine was ridiculously defective, having evidently been designed by a bicycle draftsman; but after it had been practically rebuilt, it gave fair service with the exception of the pumps. There is an air pump on one side and a water pump on the other. Both are operated by the crossheads and one of them may always be depended upon to give trouble if a trip of fifty miles is attempted.

As a rule, a cross-head driven water pump is particularly aggravating. The driving parts are so small in proportion to the work they have to perform, that they wear rapidly, a tendency which is greatly accentuated by the sand and grit always covering them, and the lost motion produced reduces the action of the plunger to such an extent, that the water thrown will not supply

the boiler. The tiny suction and check valves employed, have such a limited impact surface that it wears rapidly and impairs the efficiency of the pump. The lift of a valve is generally right for some particular speed. Above or below that the efficiency of the pump will be impaired. If the valves have too much lift, part of the water will be lost through both the suction and delivery valves. Then, a very small leak in a gland or in the suction pipe will lead to air drawing, with the result that an air cushion is formed, which prevents the free suction and the delivery of water.

Before the advent of the injector into locomotive service, the boiler was fed by pumps whose plunger was actuated by the cross-head. With high speed engines, there was constant difficulty in keeping the valves adjusted so that the water supply would be uniform at different speeds. "The engine runs away from the water," was a common report which meant that the pumps supplied the boiler at slow speed, but failed when running very fast. The reverse was also a source of annoyance. When adjusted for high speed the pumps would fail to give the necessary water supply at slow speeds. The injector is an effectual remedy of the pump disorders, and independent steam pumps are equally efficient.

The steam automobile is operated very much in the same way as a locomotive required to run at great varieties of speed. The remedy that was necessary to prevent constant delays and annoyance with locomotives ought to be applied to automobiles. There are several forms of independent pumps and injectors on the market that are suitable for automobiles. Some of the pumps keep up a supply of both air and water.

The weakest link in the mechanism of a steam automobile is the cross-head pump. Common sense demands that something more reliable be introduced. If manufacturers do not offer this improvement on their own volition, purchasers ought to insist upon it for their own comfort and convenience.

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## Why and Wherefore

**D**O you know why the automobile is really a blessing and very hopeful sign of the times? We'll tell you. It is hopeful and cheering because it does for the individual possessed of a certain position and means what could not be done in times gone by except through the enforced slavery of something else.



What such a man wants most in this world occasionally is to get off somewhere and be alone—unless he happens to be a Hot-tentot, unable, as Herr Schopp says, to get enough of his fellows' snub-nosed company.

Until the automobile came a man of affairs could get off by having some poor devil of a coachman sit up straight and drive him. The man who wanted to go out on the roads peacefully had to know that at least one other man dressed like a monkey was sitting on a very uncomfortable seat in front of him sharing the trip. Now such a man may go where he likes and as far as he likes and the motor that takes him does not mind the work.

In the automobile you see proof that there is the possibility in the very near future of giving to the many what has hitherto been the privilege of the few, and that certainly is encouraging. Each man and even most women may eventually go where he or she pleases, fast or slow, far or near. No servant is required, no democratic street-car conductor even.

Three-fourths of the value of any form of outdoor pastime is in the pleasure it gives. Monotonous outings taken merely because the body clamors for a change do very little good. There should always be some other object strong enough to make the method of taking seem but an incident.

Dull and dreary indeed must be the man or woman who will not be inspired to bestir himself or herself by this panorama of quaint, beautiful or otherwise interesting places that lie each at the end of a few miles of exhilarating riding in a motor vehicle.

A few more inventions like the automobile and this world will be much improved.

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## Wherein the Charm Is

**E**VEN the most determined enemies of the motor vehicle are forced to admit that it exercises an extraordinary charm upon those who come within its ever-widening "sphere of influence." It may be worth while, then, for the benefit of those yet uninfluenced to say a word or two in explanation of this charm and to make them realize that the motor enthusiast is no mere crank swayed only by fashion and novelty, but is a man of perception, who has reasons for the faith that is in him.

The essential and controlling charm of automobiling is that it increases one's freedom of action, while it reduces the friction of

life in an appreciable degree. A metaphysician might describe automobiling as forming part of a reaction toward individualism and simplicity of action engendered by the temporary triumph of collectivism as applied to transportation.

The railroad train is necessarily a collectivist. A passenger train starts and reaches its destination owing to the combined volition of a large number of persons who want to travel, let us say from New York to Boston. But in order to satisfy those volitions and make them executive they have to be marshalled and organized, and so, in a sense, shackled. A railroad train, with its engineer, brakeman and conductor and fixed places of stoppage, is a creature of strict rules, and those who travel in it must temporarily surrender their private wishes, or a part of them, to co-operate with others.

The man who takes out a motor vehicle and drives it along the roads is, as it were, a freeholder, with all the freeholder's freedom—though, doubtless, also, with some of the freeholder's limitations and weakness and isolation. Still, the charm of freedom estops when he likes.

The charm of being independent of one's fellows, of course, belongs also in theory to any similar conveyance, from a dirtcart to a dogcart, but in practice it does not operate in such cases save over very short distances.

The lust of time saving is too powerful and gives the advantage to the train. No horse can go at the rate of even fifteen miles an hour, to say nothing of double treble or even quadruple that, for three consecutive hours, and at the end of the three hours be ready and able to go on for another three or eight or ten or a dozen hours more. It is the tirelessness no less than the speed which makes the motored vehicle such a different mode of transport from any other of anything like equal possibilities.

In the employment of the automobile you have a method of moving from place to place as tireless as a train, one which for short journeys and cross journeys is as quick as the train, and yet withal one which is individualistic and independent, hence its charm.

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Every great movement of any prominent or practical character of the wheel of invention has had its initial revolutions rudely braked, and when it insisted on rolling forward every obstruction that ignorance and stupidity could put in its way has been ruthlessly

employed. Every good point of the improvement has been depreciated, every weakness exaggerated, every temporary failure hailed with delight. Pioneers die exhausted in the endeavor to force their way through a thicket of blind prejudice, which grows often as fast as it is cut down; and sometimes when they are gone the cause for which they have struggled has its progress barred for a generation or more. The automobile experienced all this in the past, and it is far indeed from being free from it in the present, but it will roll onward to eventual triumph and those few benighted ones who are now foremost in attempting to present it will, when the goal is reached, be foremost in the ranks of the millions who will welcome it to the high place in the world's economies to which it is entitled.

---

Those who ever see in the existing order of things all that is perfect or possible may even yet sneer at the vehicle which goes on its way without the aid of an animal, but a trial soon makes even those who sneer enthusiastic converts to the motor-driven conveyance. The day will soon come when the self-propelled vehicle, in its various forms, will be as necessary as the sewing machine and the kitchen stove now are. The automobile is a cheapening luxury at present, but widespread use will soon make it an absolute necessity, so that men will wonder, as they do now with the telephone, how they ever did without it.

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It has been proposed in England for a number of people who are disinclined or unable to own a motor vehicle to combine, buy an automobile and then apportion out its use and the expense of its upkeep according to some mutually agreed upon plan of the purchasers. The theory is all right.

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When you don't know, be brave enough to say so. Besides, it is a good plan. "I don't know" will save you many a useless argument about a vehicle or its use.

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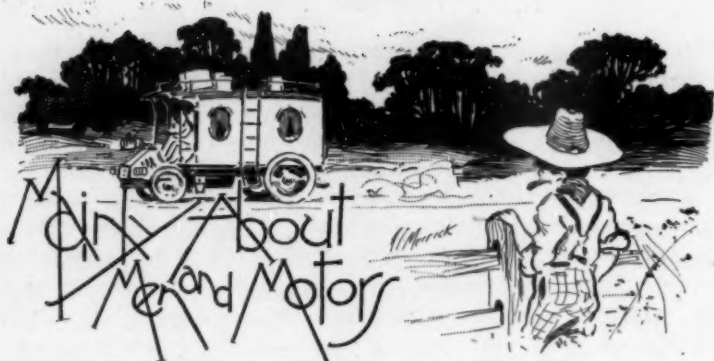
It is not wise to believe all you hear about an automobile, but it is well to use discretion in your declarations of incredulity.

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Some owners acquire knowledge of an automobile for the sake of knowing it, and some for the sake of telling it.

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In an automobile an ounce of might is often of more propulsive value than a pound of right.



**T**HAT touring is taking a decided hold on the automobile public was evidenced this summer by the large number of people who applied to THE AUTOMOBILE MAGAZINE's tour department for routes. Miss Helen Gould was among those who wanted a suitable route to a distant point, where she was going in a motor vehicle with Judging from estimable lady return, the trip a most pleasant summer she will more extensive to touring re- there opens up m a n u f a c t u r e r touring car suiting purposes.



carriage should be equipped with sleeping accommodations, as well as a cooking outfit. The time is ripe for the appearance of such a car, and the manufacturer who will first produce a suitable touring carriage will have all he can do for some time to come. It is no unusual thing for people nowadays to take an automobile trip of a week or more in duration, and many, especially the younger element, would like a little gypsy life added to the pleasure of such runs.

Will somebody please present Mr. Foxhall Keene with "the left hind foot of a graveyard rabbit caught in the dark of the moon?" There is no doubt but what Mr. Keene requires such a

mascot or bad luck preventer, for he is fast earning the title of the champion Jonah sportsman of the universe. Mr. Keene, in the races in France, was the only man to run into a railroad crossing gate, and it takes a poor-sighted man not to see a gate in the road, and Mr. Keene's sight has never been brought into question, for he is said to possess at least one attribute of his famous father, James R. Keene, and that is a vision like unto his name. When Mr. Keene goes fox hunting in the "old country" his mount usually balks at a moderate fence, and the result is generally that Mr. Keene is a little nearer the fox than the equine who throws him over the fence, in other words he gets the horse-laugh. If Mr. Keene plays polo his pony manages to run into another pony, and there is a grand mix up, Mr. Keene coming out of the skirmish badly disfigured; but to his credit let it be said that he comes out smiling for another round, and is in the ring nearly all the time.

The other day the annual dog show managers rightly recognized Mr. Keene's sporting qualities (and they are of no mean order) by inviting him to act as judge at the show in Madison Square Garden. Mr. Keene started from his Long Island country residence in his automobile, and before he had proceeded far his machine balked, probably due to the driver, and Mr. Keene landed on his head in the road. He picked himself up and proceeded to the dog show, but he had not been in the building five minutes before Homer Davenport's bulldog smelled the Jonah on him and promptly bit his hand, and he was the first person to get bitten in the show. Mr. Davenport did not use his facile pen in a cartoon way on Mr. Keene, but squared matters by inviting him out of Jersey to see the Davenport prize Chinese pheasants, Pekin ducks, etc., not to mention the sacred goat Homer keeps in mosquito land. Of course, people are liable to judge automobiles more by the mishaps of their drivers than by their real virtues, so I hope some Southern darkey will promptly supply Mr. Keene with the badly needed mascot mentioned above.

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Automobiling has a sturdy champion in the person of William Randolph Hearst, editor and proprietor of the three good dailies comprising the San Francisco *Examiner*, Chicago *American* and the New York *American*, of which the *Evening Journal* is a part. Mr. Hearst is a friend of Fournier's, and the latter got Mr. Hearst interested in automobiling, and was the means of selling him a Mors. Mr. Hearst used his vehicle in his recent successful



congressional canvass, and in Mr. Hearst's election the automobile has a sturdy champion in Congress.

I do not believe all I read in Mr. Hearst's papers, but I do know his papers are read, and that they help to form public opinion. The opposition to automobiles is not confined to the laboring class, whose interests Mr. Hearst champions, but it is well that a proper view of automobiling be given to the nearly two million people who read the Hearst publications, which are also read by many of the so-called aristocratic class who have taken a delight in placing tacks before the automobile pneumatic tire. The editorials in the Hearst publications will do much to produce a more tolerant view of the new means of locomotion which is going to do so much to assist the human race in progress, not saying anything about the poor horse to whom the automobile will come as a Lincoln to deliver them from their slavery. The automobile may be to-day a rich man's amusement, but it will be everybody's convenience a few years from now.

Users of motor vehicles can do a great deal when they are on the road to overcome the popular prejudice against the automobile, if they only observe two or three common precautions. Such observance will be promptly appreciated by a public which may have been somewhat hostile to the automobile in the past. A little courtesy toward the drivers of horse-drawn vehicles is an excellent thing, while a pleasant spoken word when passing will do harm neither to the speaker or the spoken to. If a horse is disposed to be frightened, a soothing word in good time often accomplishes wonders, but should it not do so, the automobilist would do well to stop and assist the driver in getting the animal



by. These little things will aid in winning the public over to the automobile, and will do much to disarm the hostility of those horse

owners who have suffered from the reckless and inconsiderate actions of the automobile few. Another thing that should be borne in mind is the dress of the automobilist, which should be kept as neat, and his personal appearance as cleanly as possible. There has been considerable complaint, and not without reason, too, that many automobilists look "trampy" and dirty. Cleanliness of person and neatness of dress will both aid in making automobiling popular.

The noiseless gasoline carriage has arrived, and the continued improvement in this direction has been one of the marked features of recent construction. The Stevens-Duryea, the Winton and the Haynes-Apperson are excellent examples of the noiseless class, while William Van Wagoner, of the Century Motor Vehicle Co., Syracuse, N. Y., has produced a vehicle which makes so little noise that the famous thief in the night was a brass band in comparison to it.



One of the features of THE AUTOMOBILE MAGAZINE circulation is that it reaches many people who never see any other automobile publication. Recently a Portuguese firm addressed an inquiry as follows: "The Electric Vehicle Co., America, care AUTO. MAGAZINE, N. Y." The Portuguese were evidently not quite satisfied with the Hartford firm's address, so to be sure their inquiry reached the right party they sent the letter to THE AUTOMOBILE MAGAZINE, upon whose pages they had seen the famous Columbia makers' announcement. The other day a man wrote from Bombay, India, enclosing a subscription and a remittance for some books treating of automobiles, Albuquerque, New Mexico, has a

merchant who comes to New York twice a year to buy, and while here he saw on the street a little steam automobile labeled "Customs House," but he was too busy to find out the makers of it. While thinking over the matter on a Santa Fe train cross-



ing the desert, he happened to go into the library car. There he found an AUTOMOBILE MAGAZINE, and the rest was easy. I do not think there will be any steam vehicle of this Custom House brand in Albuquerque in the near future.

Through the courtesy of Myles T. Frisbie, late city editor of the *Post-Standard*, Syracuse, I was enabled to enjoy a ride in the touring car of Herbert A. Smith, one of the partners in the Smith-Premier Typewriter Company. Mr. Frisbie has given up active daily newspaper work for the more soothing position of advertising expert for the above named company, and he is just as clever at that as he was in the city department of his old paper. Mr. Frisbie, like all up-to-date men, is a thorough believer in the automobile, and next to the Smith-Premier typewriter, he believes it to be the greatest invention of the age. The cream of Mr. Smith's admiration centers on the Winton Touring Car. Being a clever mechanic and engineer, Mr. Smith has made a few improvements in the Winton, which the writer believes are all right and will be found in the 1903 Winton, since no sooner had Mr. Smith demonstrated an improvement than he went to the Winton factory and talked it over with Mr. Winton. So far as I am concerned, I am thoroughly convinced that Mr. Smith's car is the fastest touring model Winton that I was ever in, while as a hill climber I do not believe there is anything in the world that can beat it. Incidentally Mr. Smith has put a new set of springs on his Winton, and altogether has made the vehicle so very satisfactory that I do not believe Mr. Smith would sell his present Winton for an added thousand to the purchase price.

So enthusiastic is the Premier Typewriter man over his Winton that he has already communicated the fever to six other solid Saline City men, who will all be grasping the steering wheels of this make early in 1903. Mr. Smith thinks that the 20 H. P. Winton will be the acme of all that is good in automobiles in 1903, and as the best proof of this, he has already placed his order for one of them, but he will not sell his present carriage, as he frequently takes parties out for long runs in it, and is thereby doing as much for the good health of Syracuse, as most of the doctors are. A few Sundays ago, accompanied by his wife and a friend of his wife's, they made the trip from Syracuse to Ithaca, not quite 190 miles, and were only six and a half hours on the road. Mr. Smith believes in not violating the speed laws, but he thinks a little lee-

way should be given in the country. The gentleman who accompanied him to Ithaca had previously told Mr. Smith that his wife was a sufferer from insomnia, and the latter replied: "You come in my automobile with her and I will guarantee that she will sleep." The pure air and exciting ride did so benefit her that she enjoyed such a night's sleep as she had not had before. Dr. Herbert A. Smith, of the Automobile Homeopathic school, is doing that sort of work right along. Mrs. Smith accompanies her husband on nearly all his runs and is just as enthusiastic as he is. Mrs. Smith will probably drive a Baker Electric in the spring, as her husband is considering the question of purchasing one of those clever little carriages for her.

Mr. Smith is a most interesting person to talk to, and among other things he said to me was this: "This Winton of mine is a money-maker for me, because with it I can do twice the amount of getting around and making calls on business people that I could before I had it. If I get a little worn out in the office a sharp run for three or four miles acts as a tonic to the tired mind. Formerly I was sick and always doctoring and my appetite was poor; but to-day you talk about Pink Pills for Pale People, why I can eat five times a day, and am getting as strong as Samson. The average business man," continued Mr. Smith, "should buy an automobile and charge it up to business expenses, as he will find at the end of the year that it has been one of his very best business ventures."

The buyers of automobiles will do well to beware of the irresponsible manufacturer, who wants your money in advance, and who, after getting it, cares little how you fare with the vehicle he eventually sends you. Many people have been robbed, and a good many more will be, by these pay-in-advance pirates. My warning in this refers not only to the manufacturer of automobiles, but a similar class, parts makers and sundry manufacturers, as well. A lot of such people spring up in a night and are gone in a day. It is well to inquire closely into the standing and character of people before letting go of your money, and the automobile business offers



no exception for a need for such a display of caution on the part of buyers.

---

Frederick H. Elliott, of the Century Motor Vehicle Company, Syracuse, and who is an active worker in the Syracuse Automobile Club, is pushing his State club association idea vigorously. Mr. Elliott believes, and rightly so, that an association of State clubs will do much good in a legislative way at Albany and would carry more weight with the legislative solons than would a national association. The average legislator above all things thinks most and first and last about the votes he is going to get, and he is liable to reason that his first duty is to the voters of his particular State and district rather than to the voters of Nebraska and Iowa or Florida. So I hope to see the Elliott scheme go through with a rush, and judging from the enthusiastic support he has received from Buffalo, Utica and Rochester the nucleus of the State association is already provided, and if the talked-of additional New York club comes into view in New York city, a club association will be an assured fact.

---

It was suggested the other day in a jocular way that absent treatment be given reckless automobilists, and that the horse be made amenable to the thought transfer idea. I can understand the thought theory of controlling a horse, but I am a little skeptical about mentality controlling a runaway automobile. Still there must be something in this, for the other day while in Boston I went into a building and this inscription was on an office door: "E. R. Corson, Automobile Agent and Christian Scientist." As an after-thought there was a line on the bottom, "Motor Bicycles for Sale." Now I know Mr. Corson and was sorry that a card on the door said that he was having a vacation in Maine and would not be back for a month, for I wanted to ask him how the two things mixed, and whether he had a motor that could be controlled with a thought wave friction clutch. What a magnificent thing that thought wave would be if your sparking device didn't work! It might also be good for tire punctures.

---

Those of us who are fortunate enough to sample the riding qualities of the various automobiles throughout the country are not slow to appreciate the difference between the drivers thereof. In the hands of some of them we feel glad that we carry a line of



life and accident policies so that our wives will have at least enough expense money to bridge the chasm of widowhood and until they select our successors. With others we forget all about insurance in enjoyment of the scenery and interesting objects as they are passed, while reverie takes the place of fear. Recently, on a Sunday morning, after listening to a very interesting sermon on "Power," by Dr. Morgan Wood, of Cleveland, I walked up Euclid avenue and dropped in on the Oldsmobile Company to find out something about the power progress made by Ralph Owen, who, like his brother, Ray, of New York, is pushing the popular little Detroit machine in the State of Ohio.

A party of gentlemen, including William L. Taylor, of East Liverpool, Ohio, who Mr. Owen had just taken over a short jaunt of some 200 miles in order to show him that the little Olds was all right anywhere, met the other day. Col. Dick Bacon, a very substantial Cleveland citizen, who spends a great deal of his time among the mountains and on the water, was present, and insisted that his (Bacon's) machine, an Olds, was undoubtedly the fastest little bird that ever came out of the Olds factory. Mr. Owen doubted the proposition, so the Colonel suggested that Messrs. Taylor and Owen get in the latter's vehicle, while THE AUTOMOBILE MAGAZINE representative should be the Colonel's guest. The party was then to proceed on a forty-mile run and the vehicle that was first to arrive at a certain hotel ten miles out should enjoy free of any expense a dinner, which was to be eaten on the way back. That proposition suited Ralph Owen and the start was made. A third passenger in the person of Otto Owen, a brother of Ralph Owen, occupied the dos-a-dos seat on his brother's rig, and a sure enough race resulted just as soon as the outskirts of the city had been safely passed. This same Colonel "Dick" Bacon knows how to run a machine all right and speed changing did not bother him, for only once did he throw the low gear in and that was to avoid a suddenly stopping trolley car. The Colonel regulates speed by the use of a spark almost entirely. Colonel Bacon insists that 90 per cent. of all automobile purchasers never understand the machine they buy, with the very natural result of an equal percentage of trouble. Colonel Bacon thinks that the old injunction, "Man know thyself," could be utilized, if "Man, know thy automobile," was widely advertised.

I had not gone far with the Colonel before something in his manner of control of the vehicle, especially the steering thereof,

caused me to ask him if he had ever handled a tiller on a racing yacht, and he confessed to the soft impeachment that he had, and he added, as his sporting blood fired up: "Yes, and very few of them could get away from me!" While I was learning the mysteries of boating last summer an experienced boat sharp said to me: "You must decide instantly what you want to do and do it, or you will be lost." I noticed the Colonel decided immediately when it came to steering, and bang, over went the lever, and the little carriage swooped into its intended position like a bird.

Like all good sportsmen Col. Bacon saves his mount, and he seemed to know every foot of the road and carefully avoided the ruts. Another thing that was noticeable was his saving of distance and his cleverness when passing teams. As to the speed of this particular Oldsmobile I am inclined to second the declaration of its owner that it is the fastest article that ever came out of the Detroit factory, for we had to wait for the three-passenger vehicle and then beat it out handily. This must be qualified by the remark that Mr. Taylor had the Owen lever on the way out, but coming back Ralph Owen took it, gave us a stern chase that left little to be desired in the way of trailing your leader.

Mr. Elmer Haynes, of Kokomo, Ind., thinks that there is room in this country for a string of wayside inns, such as ornament the



English and French country roads. In the old coaching days, wayside inns sprang up all over Great Britain.

When the bicycle came in vogue it encouraged the languishing bonifaces until the automobile arrived and made glad the heart of the rural publican, whose profession it is to provide "entertainment for man and beast." It is safe to say with the rapid road improvement here that the American boniface will soon be on hand with a wayside inn of a decent type, in place of the abominable road houses which now infest most of the good suburban roads in this country.

The reorganization, or rather the purchasing of the entire interest of the Badger Brass Mfg. Co., Kenosha, Wis., by my friends,

R. H. Welles and L. J. Keck, proves beyond a doubt that these pioneer lamp makers are thoroughly convinced that the future of the Solar is more than fully assured. In selecting a name for their lamp the Badger Brass Works certainly scored a touchdown and a goal in the lamp world, for nothing can be so bright as the solar luminary. But a name is not all, even though it has been said that it is better than riches, and so the construction and general merits of the Solar lamp have been tested and approved by thousands, and I hope will be approved by still other thousands not yet fully conversant with the Kenosha product. The two young men above mentioned know the trade and the trade knows them favorably, for it is doubtful if there are any other two men engaged in the praiseworthy effort of making light out of darkness who can approach the standard of popularity these young merchants enjoy. Both men are lamp specialists and only claim to know lamps and what is expected of them. In 1903 the Solar gas and oil lamps and headlights will be things of beauty and the line will attract every man and merchant who may be interested in a good automobile lamp. The reputation of the Solar lamps East and West has increased so much and their Eastern business grown to such proportions that we are to welcome L. J. Keck as New York manager of the Badger Brass Works.

It was a cheering sight I saw on Michigan avenue, Chicago, the other evening, while standing with Manager Henry Goodman, of the Electric Vehicle Co., and Charlie Tucker, the Winton manager. The time was about 5:30, and the evening



was a fine one. The magnificent boulevard was crowded with pleasure vehicles of all descriptions, and to my surprise at least one-third of them were automobiles, which proved Chicago must be a pretty good market for motor carriages. A goodly number of the conveyances

were early vintaged electrics, with solid tires and rattling motors, but they skipped along all the same, and kept right with the rest.

We are soon to have sections of steel pavement in New York, and before this issue of *THE AUTOMOBILE MAGAZINE* reaches our readers General Roy Stone, of the Good Roads Washington Commission, will have commenced to lay down in the metropolis sections of the steel pavement presented by Charles M. Schwab, president of the United States Steel Corporation. The location of these experimental pieces of steel road will be on Murray street, between Broadway and Church street, and on Seventh avenue above Central Park. It is possible that a mile will be laid in the latter location, and will consist of two rails, twelve inches broad, and will be set with their inner edges at less than the minimum wagon track distance apart. The rails are to be flat on top, except that at either edge they will have a ridge about a quarter of an inch in height to act as a sort of wheel guide. The rails will be laid in a bed of cement, and will be made continuous by joints, consisting of flat plates riveted to them.

The Automobile Club of America and Borough President Cantor will be actively interested in watching the work and this, it is hoped, will lead to a general adoption of steel pavements in the large cities where traffic is heavy. There is no doubt in my mind but what steel pavement, as laid down according to the above formula, will be a good thing, since, as I understand it, the horse will travel between the laid sections, but the road damager (the wheels of the vehicle) will run on the steel plates so that they will have practically good and easily travelled roads all the time, for it has been demonstrated that a heavy load can be drawn over a steel plate road with very little power, besides the saving in the wear and tear of vehicles will be considerable.

We modern people are liable to rail at our present roads and we condemn the people who are responsible for the road making for not giving us better roads, but we forget that we are on Easy street as compared with the men and women who had to travel the roads less than a hundred years ago. We forget those who made journeys from New York and New England to the far Pacific Coast by ox team.

THE SENATOR.

---

### A la Mode and Motor

"I'm so glad that you are engaged to Charlie Charburette. Was it a long courtship?"

"No, indeed. I don't believe we had ridden more than a hundred miles when he proposed."

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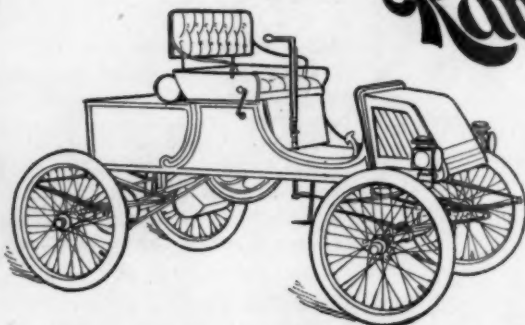
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VOL. IV No. I

JANUARY 1902

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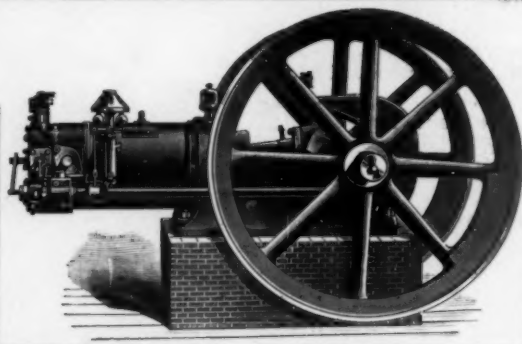
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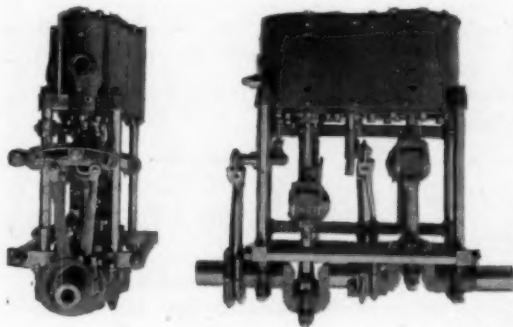
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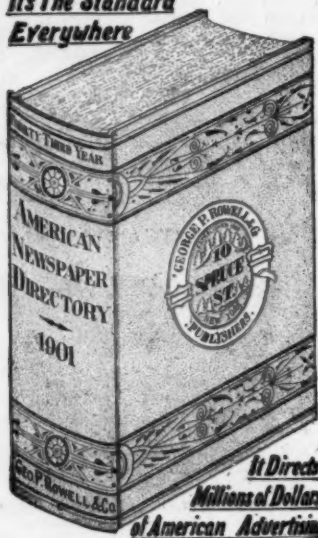


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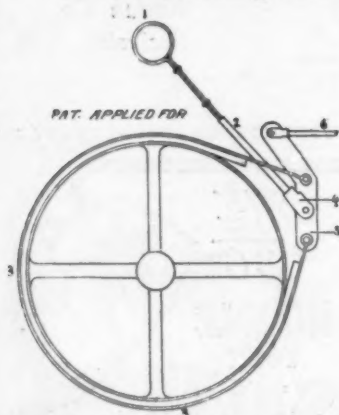
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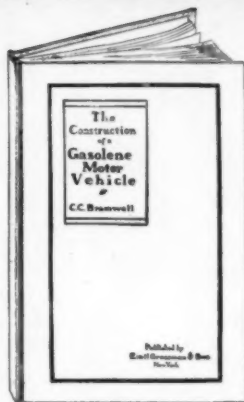
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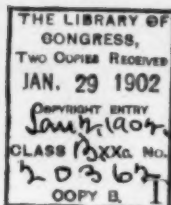
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VOL. IV No. 2

FEBRUARY 1902

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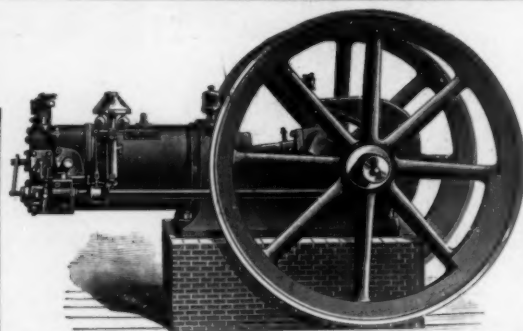
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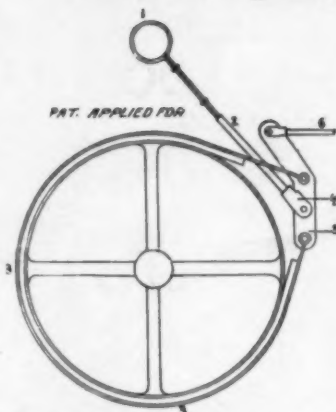
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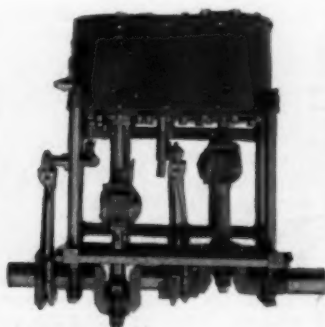
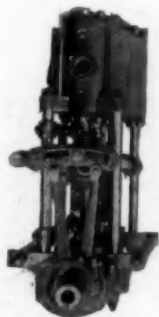
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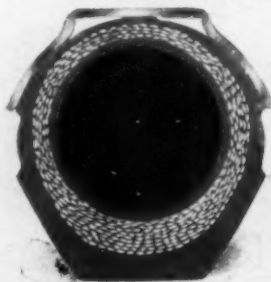
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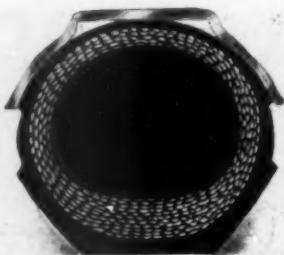
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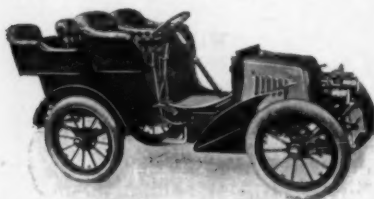
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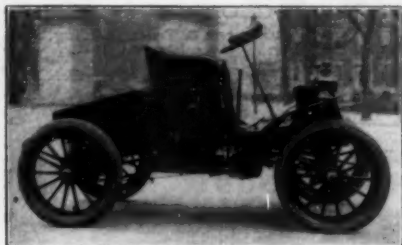
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# The Automobile Magazine

VOL. IV No. 3

MARCH 1902

PRICE 25 CENTS

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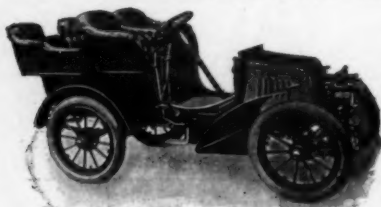
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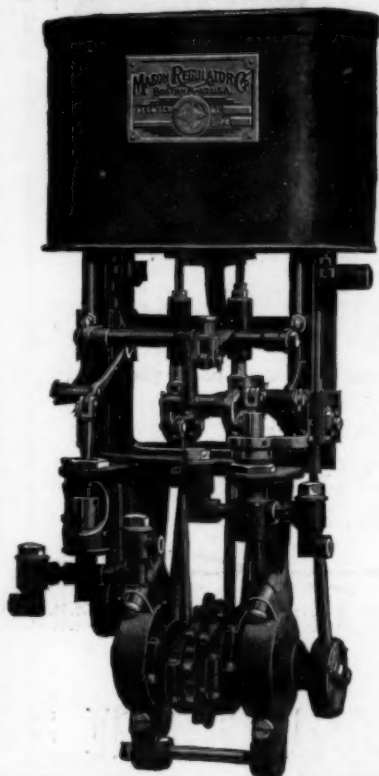
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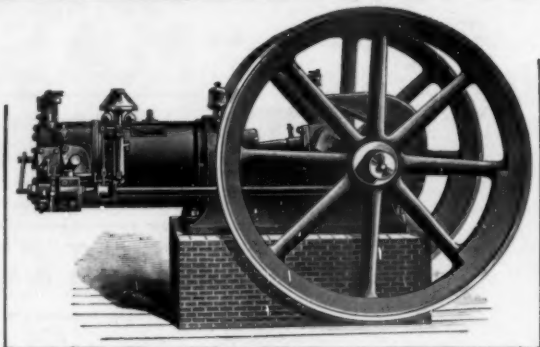
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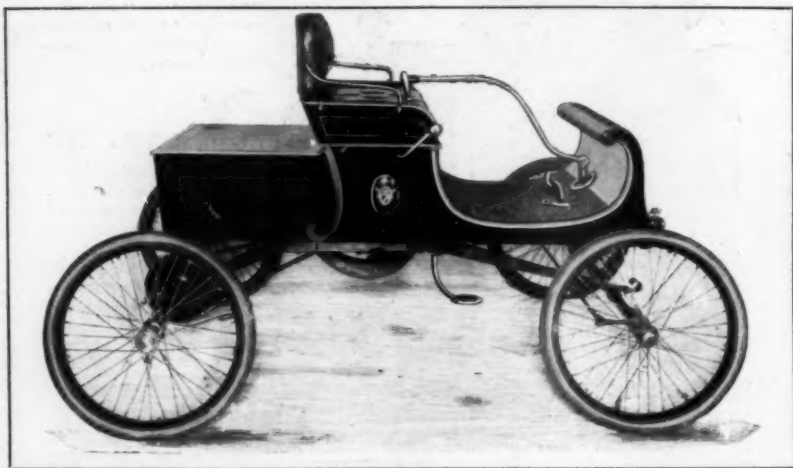
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**STRONG AND RELIABLE.**

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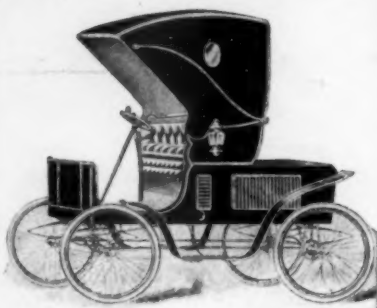
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## Beardsley & Hubbs Mfg. Co., *Shelby, Ohio.*



Manufacturers of the

## Darling Gasoline Automobile.

We will be at the Chicago Show,  
March 1st to 8th. See our exhibit.



# THE REMINGTON.



Body easily removed, Top Detachable.  
Remington Patent Foot Levers control  
all speeds. . . . .

Two Brakes. . . . . Perfect Safety.  
Noiseless.

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**Remington Two Cylinder Motors**  
**Are Simple and Perfect.**  
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# If You Have Any Questions

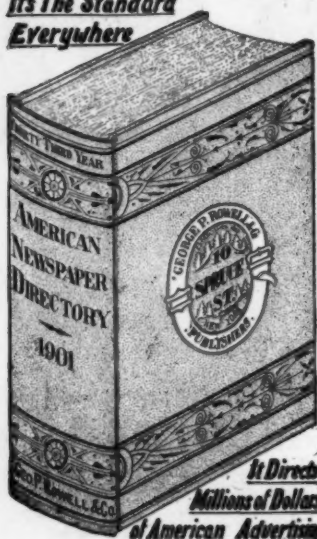
About any make of vehicle or accessories we shall be pleased to answer them to the best of our ability.

What we don't know we can find out for you—perhaps better than you can for yourself.

If you are having troubles of any kind we can probably help you. Don't be bashful—send in your queries.

**Information Bureau**  **Automobile Magazine**  
174 Broadway, Entrance No. 1 Maiden Lane,  
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ON YOUR AUTOMOBILE  
TRIPS.

Kodaks load with film cartridges that  
will not break, no matter how rough  
the roads.

**Eastman  
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*Columbia*

1092 MODELS.

**Safety.**



Mk. XIX Tonneau.

**Reliability.**



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Mk. XXXI Victoria.

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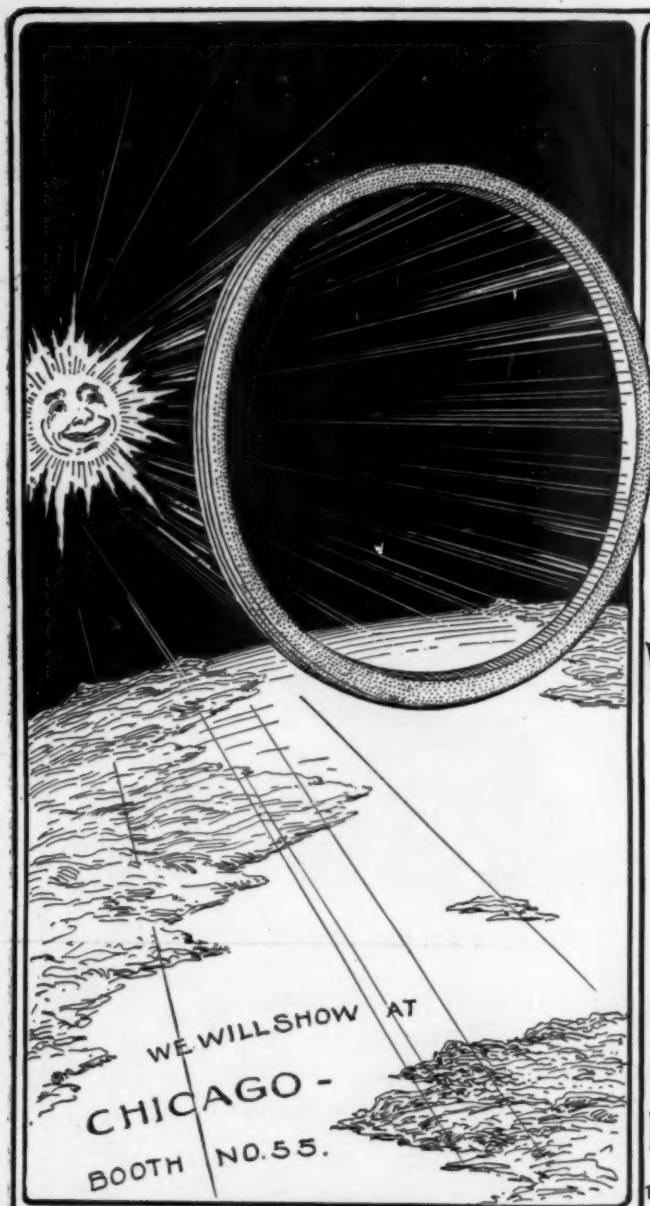
Equipped with Exide Batteries  
Columbia Automobiles excel  
all others in radius of reliable  
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**Electric Vehicle Co.,**

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SIMPLE,  
DURABLE,  
EASILY  
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THE BEST  
EQUIPMENT  
FOR THE BEST  
**MACHINES**

1902. CATALOGUES  
NOW READY.

MAKERS OF **G & J**  
DETACHABLE TIRES  
FOR  
ALL CLASSES  
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VEHICLES.

*Tried,  
Tested  
and Proven.*

ADDRESS ALL CORRESPONDENCE  
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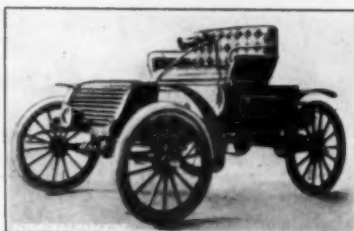
No. 3 EAST VAN BUREN STREET,  
CHICAGO, ILL.

*17,000  
Miles of Actual  
Road Experience.*

PRICE, \$750.00.

Hydro-Carbon.

Capacity, 125  
Miles.



6 H.P., Actual,  
Starts from  
Seat. No Gear.

Simplest  
Machine Ever  
Constructed.

Manufactured at BELVIDERE, ILLS., by the

## NATIONAL SEWING MACHINE CO.

CAPACITY, 10 MACHINES PER DAY.

IMMEDIATE DELIVERY.

*We have done our  
own experi-  
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*AGENTS  
WANTED.*

When ordering your  
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cify Clark Tires.

Easily Repaired.  
Cannot Rim Cut.  
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**CLARK TIRES**

A DETACHABLE  
TIRE THAT FITS ANY  
CRESCENT RIM

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FRENCH TYPE AUTO HEADLIGHT.

2 sizes, listing at \$35 and \$50 each.

# SOLAR LAMPS

for

Automobiles, Cycles & Launches Burn Acetylene Gas Successfully

Because of our patented system of gas generation.

Projects an intense white light 1000 feet ahead of vehicles.

Are made in a variety of styles and finishes, ranging in price from \$3.50 to \$50 each.

**"THEY ALWAYS SATISFY."**

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## WIRE WHEELS. STEEL RIMS.

Any Section.  
Any Diameter.  
For Vehicles  
from 300 to  
2500 pounds.

Any Section.  
Any Diameter.  
For Wood or  
Wire Wheels.

STEERING KNUCKLES  
TO FIT.

**We are the oldest and  
largest company in  
this line.**

We want your business. ❀ ❀ ❀ ❀  
We make one hundred to your one.  
For this reason we can save you ❀  
money and give you better goods. ❀

Send us your Specifications.

**Weston-Mott Co., Utica, N. Y.**

Good Things To Be Seen At The

# CHICAGO SHOW

MARCH 1 to 8.

**Electrics**—Columbia, Riker, Bachele, National, Baker, Waverley, Buffalo, Fanning.

**Steam**—Locomobile, Mobile, Toledo, Milwaukee, Overman, White, Foster, Steamobile, Darling.

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**Tires**—Long Distance, Diamond, Hartford, G & J, Goodyear, Goodrich.

**Miscellany**—American Ball Bearings, Porter Batteries, Midgley Tubular Wheels, Baldwin Chains, Brown-Lipe Gears, Dixon's Lubricants, Dow Ignition Outfits, Aurora Motors, Veeder Odometers, 20th Century and Solar Lamps, Merkel Motor Bicycles, and scores of other accessories.

The one and only opportunity to examine all of these standard productions for 1902 at one time.

Dealers and prospective buyers are requested to send for details of

## Reduced Railroad Rates

From all points in the territory of  
the Central Passenger Association.

SAMUEL A. MILES, Mgr., Monon Bldg., Chicago.



TIRE TROUBLES VANISH  
WHEN YOU USE

## "WHALEBONE" TIRES.

WHY? BECAUSE

- |      |   |      |   |
|------|---|------|---|
| 1st. | They are puncture proof.  | 6th. | They are more graceful in design and outline than any other tire, and give an unequalled finish to the wheel. |
| 2nd. | They last twice as long as any other tire made.   | 7th. | They maintain, under all loads, the same tread surface.   |
| 3rd. | They are capable of carrying double the air pressure of any other tire without increasing their diameter. | 8th. | The valves remain tight as the column of air in the tire is less disturbed.                                   |
| 4th. | They throw less mud and very much less dust.  | 9th. | The resiliency is better distributed, and they ride easier.   |
| 5th. | Being re-inforced on the upper side they are never cut by the rim.  |      |   |

## American Rubber Works Co.,

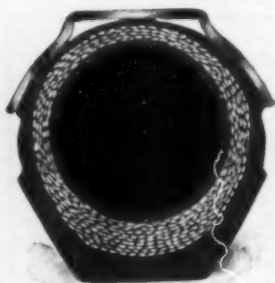
Successors to New Brunswick Rubber Co.

Manufacturers of High-Grade AUTO and CARRIAGE TIRES of all descriptions.

NEW YORK REPRESENTATIVE,  
Room 1303—

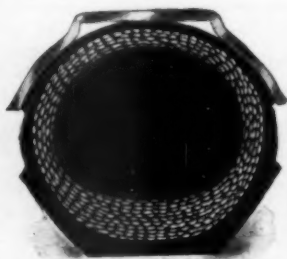
277 Broadway, New York.

Factory—New Brunswick, N. J.



INFLATED

Send for Circular giving details of our Patent Stay Thread Fabric, also Testimonials, etc.



DEFLATED

## When the Scorchers Scorcheth

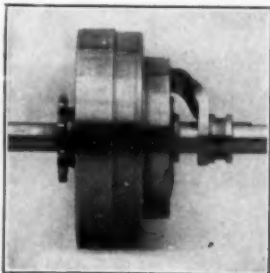
**A** CHEERFUL look and an interest in their immediate surroundings while out in public is entirely foreign to some of those who drive automobiles, who seemingly are completely wrapped up in themselves, and the desperate deeds they contemplate doing. The contagion has spread to the West, as witness this verse by one of the bright young men of the Chicago *Times-Herald*:

One more enthusiast  
Covered with dust ;  
See him go zipping past—  
“ Get there or bust ! ”  
Look at the face on him ;  
One might suppose  
Old Nick was chasin' him  
On as he goes.

Look at the goggles he  
Wears as he zips ;  
See how he joggles ; he  
Sways and he flips  
Round the sharp corners and  
Scorns all his scornors and  
Jiggles and jumps,  
Knocking dogs silly  
And keeping on till he  
Runs down or else bumps.

Has he a father,  
Has he a mother ?  
Has he a sister,  
Has he a brother ?  
If so, why don't they do  
Something to bring him to  
See what a donkey he  
Is, what a monkey he  
Looks like up there  
On that old rattle-trap,  
Splitting the air.

WANTED AND NOW HERE.



### The Champion Speed Changing Clutch

Every Automobilist and Manufacturer  
should know of it.

SAFE, SELF-CONTAINED, DIRECT.

HIGH-GRADE, REASONABLE PRICE, ORIGINAL.

Does all and more than other speed changing clutch.

Two speeds forward and one reverse.

Send for our Pamphlet which tells you all about it. Prices, discounts, etc. Agents wanted everywhere.

**THE CHAMPION MANUFACTURING CO.,**

479 Hancock St. and 76-86 Sedgwick St.,

**Brooklyn Borough, New York.**

P. J. Dasey & Co.—Spaces 53 and 54 in Chicago Show.


Established 1818.



## Brooks Brothers,

BROADWAY, NEW YORK

Everything for Automobile use and wear, from the smallest sundry accessory to the owner or chauffeur's complete Clothing or Livery outfit.

Our new illustrated and descriptive catalogue with prices, is now in press. 

### STORAGE, REPAIR AND CHARGING STATIONS.

As some stations have no facilities for repairing or charging electric vehicles, they will be designated as follows:

**S. R. C.**—Store, repair and charge all makes.

**S. R.**—Store and repair all makes.

**S.**—Store all makes.

When only special kinds are handled it will be so stated.

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*Amityville*—C. Dittman, Park Ave. S. R. C.

*Brooklyn*—Brooklyn Automobile Co., 1239 Fulton St. Telephone, 705 Bedford Branch. S. R. C.

*Brooklyn*—Champion Automobile Co., 68 Montague St. Telephone, 1868 Main. S. R.

*Brooklyn*—International Motor Car Co., 342-344 Flatbush Ave. Telephone, 1681 Main. S. R. C.

*Brooklyn*—F. Lauterbach, Flatbush and Ocean Aves. Telephone, 4261 Flatbush. S. R. C.

*Brooklyn*—Patterson & Shaw, 58 Schermerhorn St. Telephone, 3710 Main. S. R. C.

*Brooklyn*—Alex Schwalbach, 473 Flatbush Ave. S. R.

*Far Rockaway*—D. S. Starks. Telephone, 11-A. S. R.

*Flushing*—Nicks Auto Depot, 81 Grove St. Telephone, 233-a Flushing. S. R. C.

*Garden City*—August Porrier, Franklin St. Telephone, 42-A. Charge.

*Rockville Center*—Chas. E. Edwards. S. R.

#### MASSACHUSETTS

*Abington*—Lamson Machine Co., S. R. C.

*Andover*—H. F. Chase, Musgrove Blk. Telephone, 118-3.

*Boston*—Automobile Headquarters, 33 Stanhope St. Telephone, 842-2 Tremont. S. R. C. Also rents steam and gasoline carriages.

*Boston*—Park Square Auto. Station No. 1, 43 Columbus Ave. Telephone, Tremont 616. S. R. C.

## The Spalding Bidwell Co.,

GENERAL AUTOMOBILE AGENTS.

A FULL LINE OF SUNDRIES AND PARTS, INCLUDING:



CAPS, GOGGLES, COATS, DASHBOARD CLOCKS, HORNS, LAMPS, BELLS, ODOMETERS, OILS, AUTO BASKETS, etc. 

AGENTS FOR MONOGRAM OILS.

Selling Agents for  
Mobile Co. of America.  
American Bicycle Co.  
Knox Automobile Co.

SALES ROOM ENTRANCE:  
29 and 31 WEST 42nd STREET.

STORAGE AND REPAIR ENTRANCE:  
38 and 40 WEST 43d STREET, NEW YORK CITY.





## Of Course, You've "Hearn Tell Of"

the old lady who, as the train stopped, asked the conductor whether she could change trains there. He said she could if she wanted to, but she better not.

You can go buy a high-priced machine if you want to but you had better not. Not until you write Dyke for his list of **2nd Hand Machines, all makes,**

**styles and prices. Dyke's 48 page Catalogue** shows a hundred and two things you might be interested in.

Dyke manufactures Gasoline Engines 1 to 10 h.p. Wheel Steering Device, Radiators, Running Gears, etc., etc. *Watch the other fellows copy Dyke's Flexible Reachless Running Gear!* **Automobile Supplies** of every description.

**A. L. DYKE, Linmer Building, ST. LOUIS, MO.**

(Originator first Automobile Supply Co., in America.)



In answering advertisements please mention THE AUTOMOBILE MAGAZINE.

- Brockton**—W. H. Marble, 52 High St. Telephone, 353-2. S. R.  
**Cambridge**—8-10 Palmer St. Telephone, 72-2 Camb. S. R. C.  
**Canton**—J. E. Kelley. S. R. C.  
**Clinton**—Clinton Mch. Works, 460 High St. Telephone, 153-5. S. R.  
**Concord**—John McKuyer. Telephone, 14-5. S. R. C.  
**Dorchester**—Barden Cycle Co., 232 Adams St. S. R.  
**Hudson**—F. D. Knight & Son, 49 Church St. R.  
**Marlboro**—Marlboro Auto & Car Co. Telephone, 9154-13. S. R.  
**Medfield**—James Orel.  
**Medford**—F. H. Greaney, 60 Park St.; 439 High St., W. Medford. Telephone, 27-3 Medford. S. R. C.  
**No. Attleboro**—John P. Ballou, 175 Washington St. S. R. C.  
**Plymouth**—G. E. Rounds. Telephone, 205-3. S. R. C.  
**Roxbury**—Wilson Ourish, 470 Blue Hill Ave. Grove Hill. Telephone, Rox. 55. S. R. C.  
**Stoughton**—James Lehan, Lehan's Bldg. Telephone, 38-4 and 38-7. S. R. C.  
**Westfield**—Loomis Automobile Co. S. R. C.

### NEW YORK

- New York City**—Automobile Storage and Repair Co., 57 West 66th St. Telephone, 1271 Columbus. S. R. C.  
**New York City**—Homan & Schulz, 2642 Broadway, near 100th St. Telephone, 1465 Riverside. S. R. C.  
**New York City**—Harlem Automobile Co., 159-163 West 127th St. Telephone, 1459 Harlem. S. R. C.  
**New York City**—Manhattan Automobile Co., 62 West 43d St. Telephone, 4138 38th St. S. R. C.  
**New York City**—Spalding-Bidwell Co., 38-40 West 43d St. Telephone, 691 38th St. S. R. C.  
**New York City**—Chas. Strathmann, 175 E. 120th St. Telephone 1444 Harlem. S. R.  
**New York City**—"The Central," 1684 Broadway, between 52d and 53d Sts. Telephone, 596 Columbus. S. R. C.

## Packard Automobiles



THIS IS OUR NEW MODEL F.

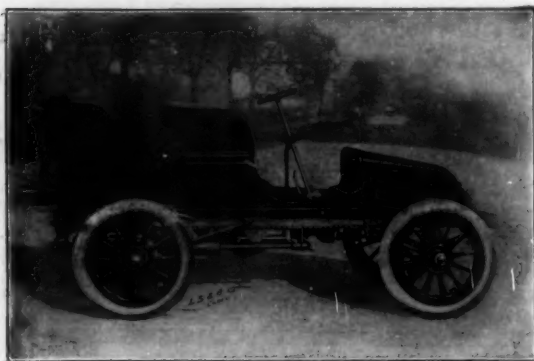
Are built for those to whom tried out efficiency is the first requisite. Past achievements speak for themselves.

Brought strictly up-to-date and are the acme of simplicity and reliability. We make no attempt to compete on price. If you are interested in this kind of a carriage, write us, or better

Ask the man who owns one.

**Ohio Automobile Co.,**  
**WARREN, OHIO.**

Eastern Department, Adams, McMurtry Company, 114 Fifth Avenue, New York.



# The Winton.

OUR 1902 construction presents many features of superior excellence. New Catalog will be found interesting.

**The Winton  
Motor Carriage Co.,  
194 Belden St.  
Cleveland, U.S.A.**

Branches in New York, Chicago,  
Boston and Philadelphia.

*New York City*—John Wanamaker, 140 E 57th St. Telephone, 1161 38th St. S. R. C.

*New York City*—"Winton," 152 East 58th St. Telephone, 4421 38th St. S. R. Wintons only.

*New York City*—Automobile Exchange & Storage Co., 133-139 West 38th St. Telephone, 5504 38th St. S. R. C.

*Albany*—F. G. Robinson, 422 Broadway and 97 Central Ave. S. R. C.

*Fort Plain*—A. A. Miller, 12 Hancock St., Telephone, Bell Long Distance.

*Huntington*—Arthur & Flessel, 53 Main St. S. R.

*Niagara Falls*—W. H. Davey, 231 First St. Telephone, Bell 336-X. S. R.

*Oneida*—Oneida Rubber Tire Works, Cedar and Phelps Sts. Telephone, Bell. S. R. C.

*Poughkeepsie*—John Benschoten, rear of Morgan House. Telephone, 39-a.

*Rhinebeck*—J. Vonderlinden. S. R.

*Rochester*—Jos J. Mandery, 150-170 South Ave. S. R. C.

*Schenectady*—A. R. Burtiss & Son, 148-152 Jay St. Telephone, 202-D. S. R. C.

*Utica*—Miller-Mundy Motor Carriage Co., Oneida Square. S. R.

## NEW JERSEY

*Atlantic City*—Arthur Boyce, 1735 Atlantic Ave. Telephone, 113-F and 766-F. S. R.

*Bridgetown*—Jacob R. Elwell. R.

*East Orange*—John M. Schmidt, 22 Railroad Pl. Telephone, 1504 E. O. S. R. C.

*Egg Harbor*—Jacob Wimberg. Telephone, Bell. S. R. C.

*Hackensack*—Davison Eng. Co., Main and Bridge Sts. Telephone, 175-I. S. R. C.

*Hackensack*—Wood & Bedly, 311 and 313 Main St. S. R. C.

*Hackettstown*—M. S. Neighbor, Hope St. (King Bldg.). S. R. C.

*Morristown*—Willis H. Dretton, 24 Washington St. Telephone, 173. S. R. C.

*Newark*—The Automobile Company, 79 Orange St. Telephone, 799. S. R. C.

In answering advertisements please mention THE AUTOMOBILE MAGAZINE.

## AUTOMOBILE RUNNING GEARS, SPUR COMPENSATING GEARS.

SUITABLE FOR STEAM, GAS OR ELECTRICITY.

Our running gears are all equipped with our own make of self-contained spur compensating gears. No spreading of Rear Truss. Can supply the trade with Compensating Gears or Running Gears complete. Write for prices.

**READING AUTOMOBILE AND GEAR COMPANY,**  
TENTH AND EXETER STREETS, READING, PA.



## MIDGLEY Tubular Steel Wheels

Unquestioned strength, combining beauty, endurance and elegance of finish. DO NOT FAIL to see this wheel at the coming CHICAGO SHOW, also examine VEHICLES equipped with it.

The only wheel specially constructed for the combined DRIVING and carrying of the load.

Write for Booklet.

**THE MIDGLEY MFG. CO.,**  
COLUMBUS, OHIO, U.S.A.

K. FRANKLIN PETERSON,  
165 Lake St., Chicago, Western Sales Office.

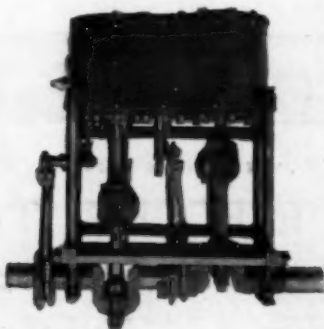
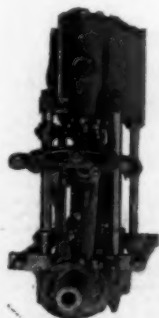
- Newark*—J. W. Geissler, 46 William St. S. R. C.  
*Newark*—L. Lawrence, 241 Halsey St. S. R. C.  
*Newark*—New Jersey Automobile Co., 8 Central Ave. Telephone, 734 Newark. S. R. C.  
*Newark*—Lewis J. Worth, 26-28 William St. S. R. C.  
*New Egypt*—Chafey & Brown. S. R. C.  
*Passaic*—Geo. De W. Brown, 271 Main Ave. Telephone, 206 B. Passaic. S. R.  
*Seabright*—H. L. Zobel, Jr. Telephone. 26-B. S. R. C.  
*South Orange*—W. L. Mead, 275 Ridge-wood Road. G.—Repair.  
*Vineland*—C. W. Pearson, N. 6th St. Tele- phone, 35 Interstate. S. R.
- Bethlehem*—Lawrence L. Beckel, Novelty Machine & Bicycle Works, 211 S. Main St. S. R.  
*Easton*—George G. Snyder, 200 S. 3d St. S. R. C.  
*Philadelphia*—Banker Brothers, Broad and Vine Sts. Telephone, 1-39-11. S. R.  
*Philadelphia*—Quaker City Automobile Co., 304 North Broad St. Telephone. 1-33-83. S. R. C.  
*Philadelphia*—Jas. M. Smith, 3503 Long- shore St. Tacony. S. R. C.  
*Pittsburgh*—Banker Brothers, Baum and Beatty Sts. S. R.  
*Reading*—Duryea Power Co., River St. Telephone, 1422. S. R.  
*Wayne*—R. W. Loundis, 116 E. Lancaster Ave. S. R.

### PENNSYLVANIA

- Chester*—John Taylor, 504 Market St. Telephone, 652. S. R. C.

### RHODE ISLAND

- Newport*—Newport Engineering Works, 359-367 Thames St. S. R. C.



## Engine Satisfaction

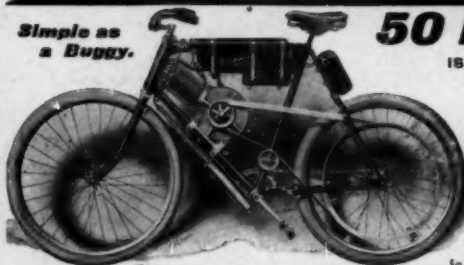
means that you need

### The Reeves Compound Automobile Engine

in your carriages. They are built for business and will do your work every day in the year.

**Reeves Machine Co.**  
TRENTON, N. J.

Simple as  
a Buggy.



**50 Miles for 10 cents.**

IS THE MAXIMUM COST OF OPERATING THE

*Mitchell*

## Motor Bicycle

With it you can make an average of 35 miles an hour over most any sort of road without effort and with **PERFECT SAFETY**. The Mitchell is a Bicycle Automobile built for one; is always under perfect control; as simple in operating as an ordinary wheel. It is built for wear and tear and not for a toy, and is fully guaranteed. Full information sent free. Manufactured only by  
**WISCONSIN WHEEL WORKS, DEPT. A M RACINE, WISCONSIN.**

## Automobile Exchange.

This department is inaugurated for the convenience and assistance of the readers of THE AUTOMOBILE MAGAZINE. If you wish to buy or sell a carriage write us about it.

### STEAM

1901 Reading Carriage, excellent condition, fenders, oiler pump, etc. Cost \$850—3 months ago—sell for \$550. Owner needs a different style carriage for his use. Address S-1.

### STEAM

Locomobile—003 with Victoria top. All improvements. Fine condition. Cost \$950—sell for \$600 f.o.b. Address S-2.

### STEAM

Locomobile—buggy with top, side curtains, hamper, front hood, side lamps and gauge lamp. Many improvements added. \$700. Address S-3.

### STEAM

Locomobile—1901—02 model, extra tire, tank touring basket, chain, etc. Cost \$1,000. Price \$700. Address S-4.

### STEAM

Locomobile No. 03. Panel seat and Victoria top. Perfect order—run only 800 miles. Cost \$900—sell for \$625. Address S-5.

### STEAM

Toledo—has new engine and boiler—run about 500 miles and is as good as new. New top just applied. Cost \$950—sell for \$750. Address S-6.

### GASOLINE

Voiturette—new, latest model; best design, interlocking wheel steer. Has carried 5 people up 7 per cent. grade. Powerful water cooled motor. Weighs only 700 pounds. Will carry you anywhere. \$1,000. Address G-2.

### GASOLINE

Gasmobile—nearly new; two passengers and rumble, all improvements. \$1900. G-3.

### GASOLINE

Party wants two-seated gasoline vehicle. State make, power, condition and price. G-4.

### GASOLINE

Model C Packard—12 H. P. engine, detachable rear seat and top, 1 extra tire, brass lamps and full tool equipment. Run about 500 miles—guaranteed in fine condition. Cost \$1550—sell for \$1000. Address G-5.

### MOTORCYCLE

Werner, 1½ H. P.; good condition. Run about 1,000 miles. Price \$85. Address M-2.

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Thomas Auto-Bi, 1½ H. P.; excellent condition. Price \$135. Address M-3.

### ELECTRIC CARRIAGE

Victoria—run but 150 miles. Perfect condition. Cost \$2300—will sell for \$1400. Address E-1.



Evening Star No. 9—\$2.50

## PORTABLE ELECTRIC TORCHES.

Automobile Gauge Glass Lights, Flexible Attachments for examining gasoline tanks and motors. Our representative will be at the Chicago Show. Write for prices and catalogue.

Electric Contract Company, - - 53 Maiden Lane, New York.

# Two Contests

For readers of AUTOMOBILE  
MAGAZINE. For the best 1500  
to 2000 word stories of

## A DAY'S RUN

Three prizes will be given. Tell  
it in your own way, not forgetting  
the incidents and accidents. Send  
photographs if you have them.☞☞  
We also want

## Automobile ☞ Photographs

or rather photographs in which  
Automobiles figure in various ways  
that are interesting and amusing.☞  
Three prizes given for these also.

===== ADDRESS =====

**Editor, Automobile Magazine**  
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**NEW YORK.**



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"I mixed part of the sample of Dixon's No. 635 graphite you sent me with oil, and used it in cylinder, also all bearings and slides on my Mobile. I took a run of 9 miles and found my slides in such good condition that I ran another 9, making 18 miles at a 12 mile an hour gait, and at the end of the 18 miles there was still graphite on the slides and everything working fine. I also find I use only one-half the oil in cylinders and there is no squeak. Before I had the graphite I never ran over 10 miles without oiling slides. I would as soon think of running my Mobile without water as without *graphite*. You sent such a large sample that it will last me for some time, but shall order as soon as this is gone. All my friends having carriages are using it, and I think it is the best thing on earth."

Those who are not posted on Dixon's graphite for steam, gasoline and electric automobiles should write us at once. Samples free.

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**JERSEY CITY,**  
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Your customer  
wants them!  
Why not give  
them the best?  
They are made  
by

**Phineas Jones**  
 & Company,  
 301 to 313 Market Street,  
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## "Rigs That Run"

They run for others,  
Why not you?

Cincinnati, Ohio, Oct. 18, 1901.

St. Louis Motor Carriage Co., St. Louis, Mo.

GENTLEMEN—Will you please send me catalogue and price-list of your latest type of carriages suitable for two and four people. There are three or four Steam Carriage owners here who contemplate purchasing gasoline machines shortly and who are posting themselves on the merits of the various makes.

One of your vehicles owned by Mr. T. C. Meadows of this City (the Treasurer of our Automobile Club) has given excellent service, perhaps better than any in the club.

Very truly yours,

(Signed)\_\_\_\_\_

This is the way they run everywhere.  
If you want a "Rig that Runs" get a St. Louis Carriage and be sure about it.  
We will send you Catalogs free. All you have to do is ask for them.

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 1120 Vandeventer Ave.,  
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# PRESCOTT TOURING CARS

Carry 2 or 4 People.



**TWO DOUBLE ACTING BRAKES ON REAR HUBS.**

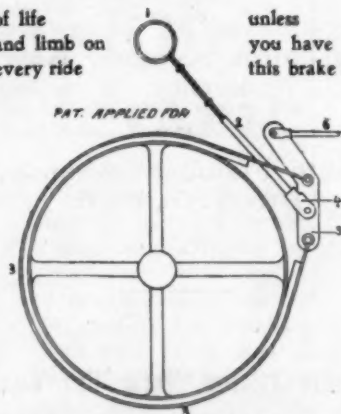
Heavy Roller Chain. Heavy Running Gear.  
NEW STYLE ROLLER BEARINGS.  
Large Fuel and Water Capacity.  
New Burner and Pilot Lights.  
Start in 3 minutes. Superheated Steam.  
Automatic Lubricators. ENCLOSED ENGINE.

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## You are in DANGER

of life  
and limb on  
every ride

unless  
you have  
this brake!



**THIS BRAKE** holds in either direction—  
does not bind and **WILL HOLD YOU**  
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find out more about it.

**N. J. Automobile Co.,**  
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Agents Wanted.

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**We have a neat plan for a  
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sells for \$1.00. . . .*

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can help you. . . .*

**Automobile Magazine,**  
174 Broadway,  
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FOR

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OR AT

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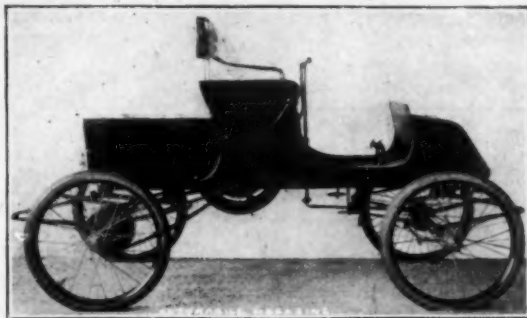
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*When you see the Baker Electric, you see the best made, most efficient and finest finished Electric Automobile in the country. We manufacture Stanhopes with Victoria or open top for ladies' driving or physicians' use, and two styles of Runabouts that have no equal. Send for Catalog.*

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**SPEAKS FOR ITSELF.**

"As regards the machine, it works to perfection and I am highly satisfied and cannot say too much in recommendation of the same. Several of my friends have seen it and are inclined to buy one, and I think shortly they will place some orders."

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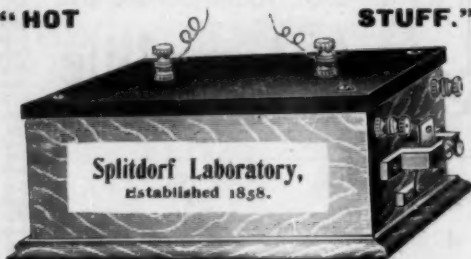
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AUTOMOBILE COMPANY,**

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## THE SPLITDORF JUMP SPARK COILS

"HOT

STUFF."



are now the recognized standard of the gas and oil motor world, and we can refer to the best authorities, who have given unsolicited testimonials regarding their superior quality. The SPLITDORF COIL is without a peer, and has the name Splitdorf stamped on each coil. Stop experimenting and save time and money by getting the best, which is the Splitdorf. These coils are constructed similar to the 1-inch intensity coils which we have made ever since 1898 for laboratory work, and of which thousands are still in use.

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**The Automobile Construction Company,**

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Address: Taylor, Care THE AUTOMOBILE MAGAZINE.



# The Automobile Magazine

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VOL. IV No. 4

APRIL 1902

PRICE 25 CENTS

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AUTOMATIC, ECONOMICAL AND  
EASY TO ATTACH.



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Will send on 30 days' trial. Write for prices. Manufactured by the

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brings the pleasures of Automobiling. These will be increased when your machine is equipped with

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for they add that feeling of Security and Comfort.  
"RIDE THE FISK AND RUN NO RISK."

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All Roads Alike to  
**The Oldsmobile**

Runs Everywhere

The best thing on wheels, look at it any way you may. A practical Motor vehicle for every day of the year. For business or pleasure the ideal Runabout—always ready for instant starting with the power to keep everlastingly going.

**Price, \$650 f. o. b. Detroit**

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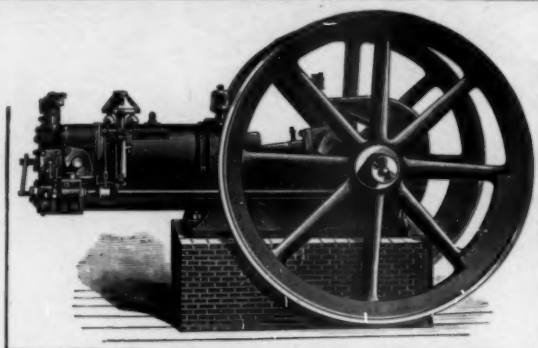
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 Olds Gasoline Engine Works, Omaha, Neb.  
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**DETROIT**

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for any  
purpose  
let us know  
just what  
you want.



## Otto Gas and Gasoline Engines

are known the world over as the cheapest, best and most reliable power you can use.

YOU CAN DEPEND ON THE "OTTO."

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Estimates given on not less than 100 from each pattern.

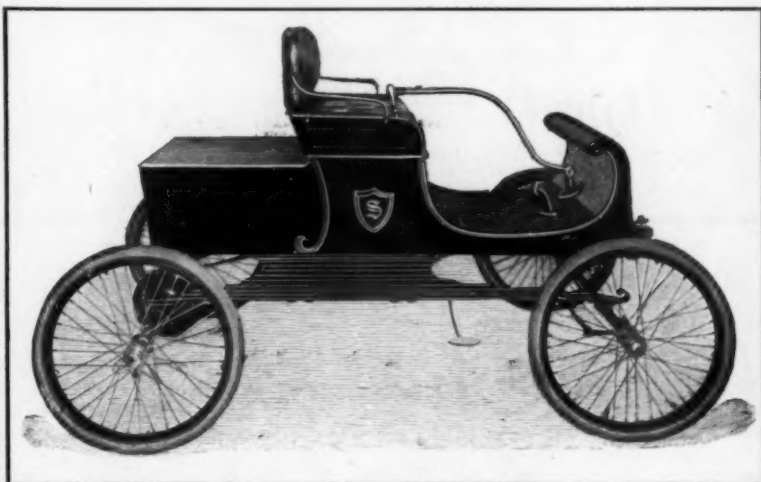
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## \$650

wants a vehicle that will carry him anywhere he wants to go and not require a skilled mechanic to keep it in order.



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meets h's every requirement. Starts from the seat. Runs 200 miles on one charge of gasoline and is **SIMPLE — DURABLE — ECONOMICAL.**

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*Trials  
Tested  
and Proven.*

ADDRESS ALL CORRESPONDENCE  
TO

*17,000  
Miles of Actual  
Road Experience.*

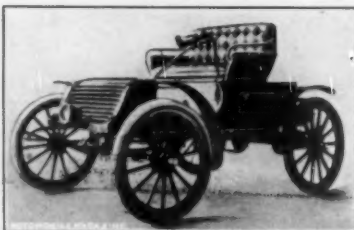
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Price, \$750.00.

Hydro-Carbon.

Capacity, 125  
Miles.



6 H. P., Actual,  
Starts from  
Seat. No Gear.

Simplest  
Machine Ever  
Constructed.

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CAPACITY, 10 MACHINES PER DAY.

IMMEDIATE DELIVERY.

*We have done our  
own experi-  
menting.*

*AGENTS  
WANTED*

When ordering your  
new machine spec-  
ify Clark Tires.

Easily Repaired.  
Cannot Rim Cut.  
Write for Catalogue.

**CLARK TIRES**

A DETACHABLE  
TIRE THAT FITS ANY  
CRESCENT RIM

CLARK TIRE CO.  
CHICAGO.  
LAKESIDE BLDG.

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## STOPPING TO FILL YOUR TANK

every twenty or thirty miles isn't pleasant—neither is it necessary if you use the right carriage—that's a

# WHITE STEAM CARRIAGE



Its superior boiler system gives a larger mileage per gallon of gasoline than any other, and also reduces amount of water used. With the condensers used on our new carriages you can run 100 miles on one tank of water.

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# WHITE SEWING MACHINE CO.

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SAN FRANCISCO

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For Business and Pleasure

ENGINES, GEARS,  
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PLUGS, 1

Desberon Motor-Car Co.

51st Street and Twelfth Avenue

NEW YORK CITY



*Toledo*

A STEAM VEHICLE of best possible design; built of the highest grade stock that can be procured. That's the "TOLEDO" Story.

Write for full information.

International Motor Car Co.  
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NEW YORK BRANCH: 91 Fifth Avenue.

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Any Section.  
Any Diameter.  
For Vehicles  
from 300 to  
2500 pounds.

Any Section.  
Any Diameter.  
For Wood or  
Wire Wheels.

Steering Knuckles  
To Fit.

WE ARE THE OLDEST AND  
LARGEST COMPANY IN  
THIS LINE.

We want your business. : : : :  
We make one hundred to your one.  
For this reason we can save you  
money and give you better goods.

Send us your Specifications.

Weston-Mott Co., Utica, N. Y.

# "RIGS THAT RUN"

THEY RUN FOR OTHERS, WHY NOT YOU?



Cincinnati, Ohio, Oct. 18, 1901.  
St. Louis Motor Carriage Co.,  
St. Louis, Mo.

GENTLEMEN—Will you please send me catalogue and price-list of your latest type of carriages suitable for two and four people? There are three or four Steam Carriage owners here who contemplate purchasing gasoline machines shortly and who are posting themselves on the merits of the various makes.

One of your vehicles, owned by Mr. T. C. Meadows, of this city (the Treasurer of our Automobile Club), has given excellent service, perhaps better than any in the club.

Very truly yours,  
(Signed) \_\_\_\_\_

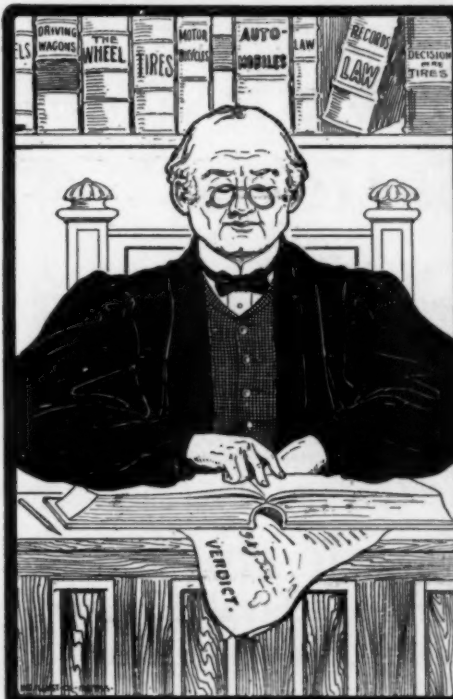
*This is the way they run everywhere.*

*If you want a "Rig that Runs" get a St. Louis Carriage and be sure about it.*

*We will send you Catalogs free. All you have to do is ask for them.*

## St. Louis Motor Carriage Co.

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### THE VERDICT

*of all who use  
**G & J TIRES**  
is that they embody  
all the requirements  
of THE IDEAL TIRE —  
**Strength,  
Speed,  
Durability,  
Simplicity,  
Ease of Repair***

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evening's entertainment.  
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ON YOUR AUTOMOBILE  
TRIPS

Kodaks load with film cartridges  
that will not break, no matter  
how rough the roads.

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Rochester, N. Y.*

Catalogue at  
the dealers' or  
by mail.

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About any make of vehicle or accessories we  
shall be pleased to answer them to the best of  
our ability.

What we don't know we can find out for  
you—perhaps better than you can for yourself.

If you are having troubles of any kind we  
can probably help you. Don't be bashful—  
send in your queries.

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Bureau &

**Automobile Magazine**

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# THE BARRETT Automobile JACK

is a quick-acting **Automatic Lowering** Jack especially designed and proportioned for Automobile Use. It has a Lifting Capacity of **One Ton** and is the **Quickest, Safest and Most Durable Jack** on the Market. It raises its load **easily and swiftly** on both upward and downward strokes of the lever and **lowers** in the same manner by simply turning the thumb-screw at its side. This Jack is **light** and is easily carried and operated. The materials and workmanship are the **Very Best** and all its parts are machine finished. It is adapted to any carriage and is **indispensable**. Send for Circular and Prices. ❀ ❀ ❀ ❀

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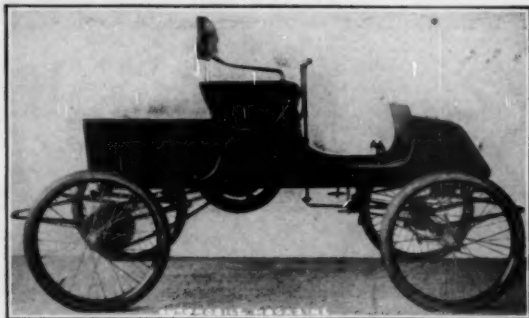
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## The Duff Manufacturing Co.

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THOMAS B. JEFFERY & CO. manufacture the  
**Rambler** Automobile

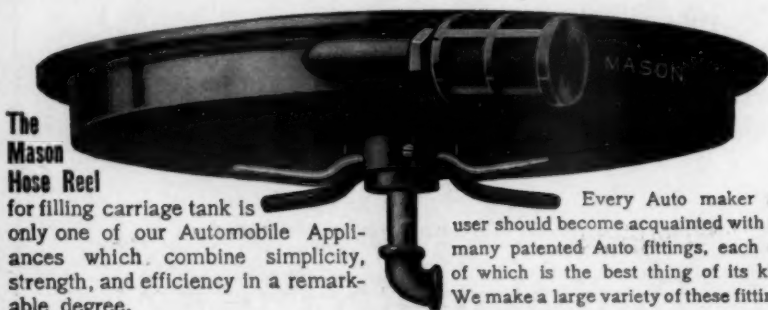


The most practical light touring car made. Fuel supply for 150 miles; safety starting device. Two speeds forward, one reverse. Operated easily by any lady. Safe for any road in any weather. Booklet C-X gives full particulars. Sent on request.

General Offices and Factory, - KENOSHA, WISCONSIN

**50%** of ALL **MASON**  
**AUTOS** are fitted with **ENGINES**

Send for Free Illustrated Descriptive Catalogue of them



The  
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Hose Reel

for filling carriage tank is only one of our Automobile Appliances which combine simplicity, strength, and efficiency in a remarkable degree.

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**158 Summer St., BOSTON.**

(KINDLY MENTION THIS PAPER.)

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# USE THE HAYNES- APPERSON AUTOMOBILE

*The most  
Practical  
Automobile  
in the World*

EVERY one of the so-called "weak" or "unreliable" features of gasoline machines has in ours an alternative. Drivers of our carriages frequently pass automobiles stalled on account of accidents which, in our machine, would not cause an operator to leave his seat, because another way has been provided for all ordinary troubles.



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PHAETON. 9 H.P. 36 in. Wheel. 1,900 Lbs. \$1,500

NOTHING but a smash-up or a complete exhaustion of supplies can stall a Haynes-Apperson Machine.

Nine years' experience is back of its simplicity, strength of construction and practicability.

No failure mars our record. Every machine we have ever entered in any contest has won first place, demonstrating the efficiency of our product to the satisfaction of every inquirer and the envy of all competitors.

These pictures show our machines in correct relative proportions. Our catalogue tells the rest. We refer you to our record and our customers.

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There are two Vaporizers—The mixture is mechanical and must be mechanically deranged to be affected. This practically never happens to both cylinders at once. The other cylinder will bring you home, or will 'turn the crank' for you, permitting immediate and easy adjustment of the one that is out.

Our Spark is taken from a Magneto—Should it give out (a rare occurrence), you switch to the starting batteries and continue to run.

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RUNABOUT. 6 H.P. 32 in. Wheels. 1,250 Lbs. \$1,200

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The Oldest Makers of Gasoline Motor Cars in America.

The Details of an Automobile cannot be perfected in a Season.

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**If you  
don't  
know  
the best  
route**

for that tour you are thinking about, we can help you. We have secured the services of

**MR. ROBERT BRUCE**

**The leading authority on touring in America**

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Beginning in May he will give popular routes with maps and descriptions, and in the meantime he can be addressed on this subject in care of

**The Automobile Magazine**

**174 BROADWAY    ✂    ✂    NEW YORK**

# Wood Wheels

Your customer wants them!

Why not give them the best?

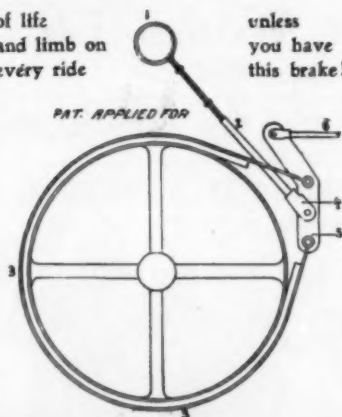
They are made by

**Phineas Jones**  
& Company  
301 to 313 Market Street  
NEWARK, N. J.

## You are in DANGER

of life  
and limb on  
every ride

unless  
you have  
this brake!



THIS BRAKE holds in either direction—does not bind and WILL HOLD YOU ANYWHERE. Better send a postal and find out more about it.

**N. J. Automobile Co.,**  
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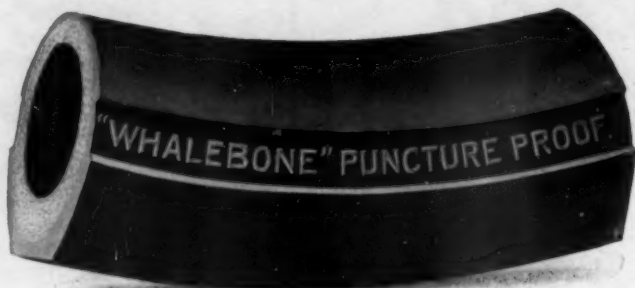
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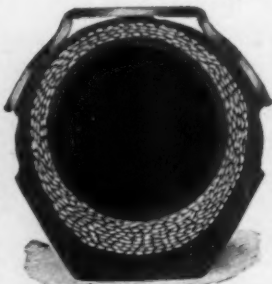
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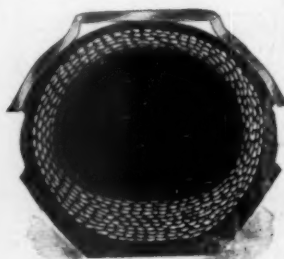
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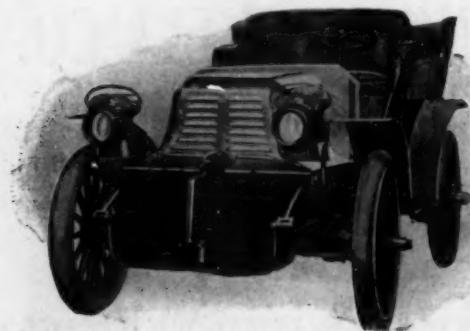
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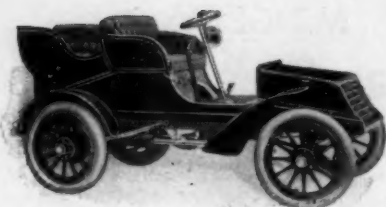
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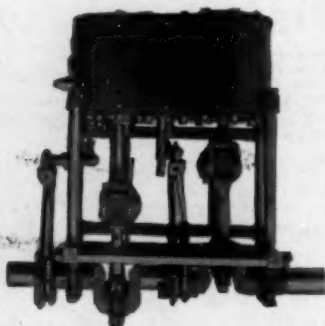
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in your carriages. They are built for business and will do your work every day in the year.

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with detachable tonneau.

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Built in America. 12 and 16 H.P. Motor. Weight 1250 to 1900 lbs. Three styles of bodies. Three speeds and reverse. Odorless exhaust. Long wheel base. Low center of gravity. Flexible power transmission.

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PROVIDENCE—Amer. Cycle Mfg. Co., 15 Snow St. Telephone, 51. S. R. C.  
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COLUMBIA—J. E. Richard, 1526 Pickens St. Telephone, So. Bell No. 55. S. R. C.

### WISCONSIN

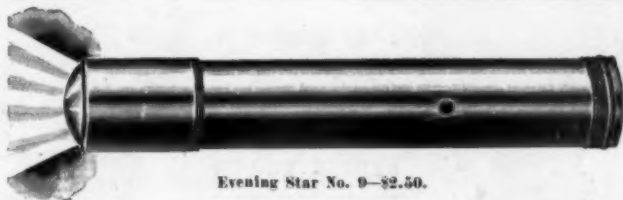
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I will install and guarantee a complete little charging plant, consisting of Engine, Dynamo and Switchboard, and all appliances, for \$600, and up to \$900. You can have your own private plant. Cost of charging very low. No skill required to operate. Write me for particulars.

J. CAMPION, 848 9th Ave., N. Y.

**FOR SALE**—Steam Mobile, 1901 Model, good as new, in perfect operating condition. Equipped with Kelly generator, electric gauge lights and "Never Out" gas headlight. Cost \$850.00; will sell for \$575.00 f. o. b. cars, East Pittsburg, Pa. Address E. C. H., the Automobile Magazine.



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Automobile Gauge Glass Lights, Flexible Attachments for examining gasoline tanks and motors. Our representative will be at the Chicago Show. Write for prices and catalogue.

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SOLAR STANDARD LAMP

FROM  
ANY  
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IN ALL  
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SOLAR AUTOMOBILE LAMP

# SOLAR LAMPS

are pre-eminently the standard of excellence

**AUTOMOBILE LAMPS** must fulfill more requirements than any other vehicle lamps. Practical experience and test have taught us to build Solar Automobile and Carriage Lamps to produce the following results:

- 1—They must project a clear field of intensely powerful light from 100 to 1000 feet ahead and "show the way" to be of value in steering.
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5—They must combine all of the above with beauty in design and finish, and sell at reasonable prices.

The Solar Lamps fulfill all of the above.

No Oil Lamp Will

OUR CATALOGUE FOR  
THE ASKING

**BADGER BRASS  
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SOLAR BABY SQUARE LAMP



SOLAR SPECIAL AUTO HEADLIGHT

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WHEN YOU GO OUT FOR A RUN. TAKE SOME OF THE INTERESTING PICTURES YOU SEE AND SEND THEM TO US. THEN TELL YOUR EXPERIENCES IN YOUR OWN WAY, NOT FORGETTING THE AMUSING INCIDENTS OR THE MIS- HAPS—THEY ADD TO THE INTEREST.

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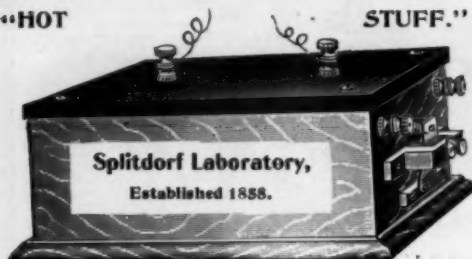
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**Editor Automobile Magazine**  
**174 Broadway, Entrance, No. 1 Maiden Lane,**  
**NEW YORK**

## THE SPLITDORF JUMP SPARK COILS

"HOT

STUFF."



are now the recognized standard of the gas and oil motor world, and we can refer to the best authorities, who have given unsolicited testimonials regarding their superior quality. The SPLITDORF COIL is without a peer, and has the name Splitdorf stamped on each coil. Stop experimenting and save time and money by getting the best, which is the Splitdorf. These coils are constructed similar to the 1-inch intensity coils which we have made ever since 1888 for laboratory work, and of which thousands are still in use.

BEWARE OF IMITATIONS.

**C. F. SPLITDORF,**  
17-21 Vandewater Street,  
NEW YORK.

### For Sale.

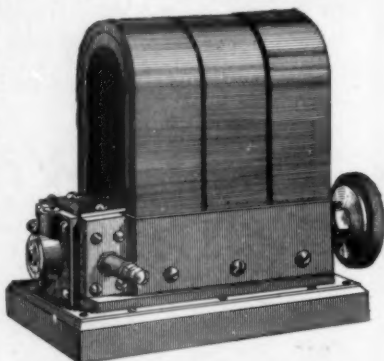
Two passenger "Toledo" steam carriage. Six H. P. engine. Substantial frame and tires. Good as new, having run only 500 miles. New top. Cost \$950, will sell for \$750.

Address "S-6"

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### THE NEW HENRICKS IGNITER

A SURE CURE FOR SPARKING TROUBLES. USED BY LEADING AUTO AND MARINE ENGINE BUILDERS. SUCCESSFULLY WORKS JUMP SPARK COIL.



Booklet telling all about it FREE.

**HENRICKS NOVELTY CO.,**  
617-619 So. Illinois St., Indianapolis, Ind.

### AUTOMOBILE RUNNING GEARS, SPUR COMPENSATING GEARS,

SUITABLE FOR STEAM, GAS OR ELECTRICITY

Our running gears are all equipped with our own make of self-contained spur compensating gears. No spreading of Rear Truss. Can supply the trade with Compensating Gears or Running Gears complete. Write for prices.

**Reading Automobile and Gear Company**

TENTH AND EXETER STREETS, READING, PA.

In answering advertisements please mention THE AUTOMOBILE MAGAZINE.

## We Are Headquarters

*For anything in the line of  
automobile literature or  
other information . . . .*

## We have a neat plan for a House for Your Auto

*which with specifications  
sells for \$1.00 . . . .*

*Tell us your troubles or  
your wants—perhaps we  
can help you . . . .*

## AUTOMOBILE MAGAZINE

*174 Broadway,  
New York.*

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Registered Attorney U. S. Patent Office  
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## R·I·P·A·N·S

There is scarcely any condition of ill-health that is not benefited by the occasional use of R·I·P·A·N·S Tablets. For sale by Druggists. The Five-Cent packet is enough for an ordinary occasion. The family bottle, 60 cents, contains a supply for a year.

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*Terms reasonable. Pamphlet sent.*

## "The Best Thing on Earth."

"I mixed part of the sample of Dixon's No. 635 graphite you sent me with oil, and used it in cylinder, also all bearings and slides on my Mobile. I took a run of 9 miles and found my slides in such good condition that I ran another 9, making 18 miles at a 12 mile an hour gait, and at the end of the 18 miles there was still graphite on the slides and everything working fine. I also find I use only one-half the oil in cylinders and there is no squeak. Before I had the graphite I never ran over 10 miles without oiling slides. I would as soon think of running my Mobile without water as without *graphite*. You sent such a large sample that it will last me for some time, but shall order as soon as this is gone. All my friends having carriages are using it, and I think it is the best thing on earth."

Those who are not posted on Dixon's graphite for steam, gasoline and electric automobiles should write us at once. Samples free.

**Joseph Dixon Crucible Co.**  
**JERSEY CITY,**  
**N. J.**



"GOOD MACHINES ONLY."  
The Chicago Show Was Good



We have here a better show for you to get a good machine than you have ever had or will have for some time to come.

Brand-new Knox Three Wheel Machine.....\$475  
Knox Three Wheel, run 300 miles.....\$345  
No. 03, Locomobile, Run. Victoria top and panel seat; run about 1200 miles; good running condition as a new machine.....\$575  
No. 2, Locomobile, good condition.....\$525  
Foster Steam Machine, 1901 Model, almost new.....\$395  
And other bargains.

Dyke manufactures Carburetors, Radiators, Pumps, Gasoline Engines from 3 to 10 h.p.

A. L. DYKE, Linmer Bldg., St. Louis, Mo.

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MILWAUKEE, WIS.

Recognizing the fact that many people cannot pay the high price asked for some Automobiles, we are inviting propositions to make Automobiles of any design to order on contract plan. Will construct machines from parts furnished if required. Send for photos of machines already built. *Machines built from \$350 up.* Our new Spark Coil of new and special design, listing at special low price, will be ready for the market shortly.

## THE AUTOMOBILE CONSTRUCTION CO.

MILWAUKEE, WIS.

HERMAN C. MUELLER, Manager.



Wheel Base 68 inches.

Weight 1000 lbs.

Carry 2 or 4 Passengers.

## Prescott Touring Car

Two Double Acting Brakes on Rear Hubs; Heavy New Design Running Gear; American Roller Bearings; Large Fuel and Water Capacity; New Indestructible Burner; Pilot Light Never Blows Out; Superheated Steam Doubles the Mileage of Water; Economy of Fuel; Encased Engine; Automatic Lubricator.

SEND FOR CATALOGUE

**Prescott Auto Co.**  
83 Chambers St., New York

# GASOLINE VEHICLE

I will sell a good runabout with 4 H. P. Crest Motor, Loomis Carburettor, all in good condition for \$400. Or will exchange for a single seated steam machine on reasonable terms.

Address: Taylor, Care THE AUTOMOBILE MAGAZINE.

In answering advertisements please mention THE AUTOMOBILE MAGAZINE.

# The Automobile Magazine

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VOL. IV No. 5

MAY 1902

PRICE 25 CENTS

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INTERNATIONAL NEWS COMPANY,

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LEIPZIG

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12s. 4d. Sterling

## The Baker Electric

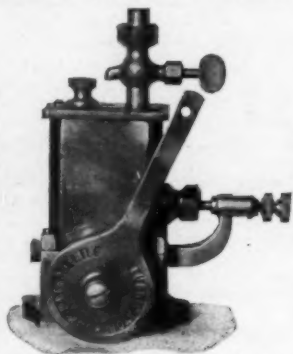
When you see the BAKER ELECTRIC, you see the best made, most efficient and finest finished Electric Automobile in the country. We manufacture Stanhopes with Victoria or open top for ladies' driving or physicians' use, and two styles of Runabouts that have no equal. Send for Catalog.

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VEHICLE COMPANY**  
CLEVELAND, OHIO

## Phenix Force Feed Lubricator Pump FOR STEAM CARRIAGES

(Patented May 1, 1900; Dec. 18, 1900.)

AUTOMATIC, ECONOMICAL AND  
EASY TO ATTACH.



REGULAR, POSITIVE AND NEEDS  
NO ATTENTION.

Will send on 30 days' trial. Write for prices. Manufactured by the

**PHENIX METALLIC PACKING COMPANY**  
7 and 9 So. Jefferson Street, CHICAGO, ILL., U. S. A.

# FISK TIRES

for equipment make your machine  
higher grade, they put the finishing  
touch to it, because they are the best

## IT WILL PAY YOU TO INVESTIGATE

**FISK RUBBER CO., CHICOPEE FALLS, MASS.**

BRANCHES:

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BUFFALO DETROIT CHICAGO SAN FRANCISCO

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Send for illustrated book K  
tells all about The  
Oldsmobile.



Price \$650.

F. O. B. Detroit.

*All Roads alike to* **The Oldsmobile** *Runs everywhere*

For country and city, for pleasure riding and business driving, **The Oldsmobile** cannot disappoint the highest expectations. The length of the wheel base about 5½ feet gives an easy movement to the steering lever and insures smooth riding on rough roads.

**Sales Agents**

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Oldsmobile Co., Washington, D. C.

Quaker City Automobile Co., Philadelphia.

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Western Automobile Company, Cleveland, O.

William E. Metzger, 254 Jefferson Ave. Detroit, Mich.

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Fisher Automobile Co., Indianapolis, Ind.

Olds Gasoline Engine Works, Omaha, Neb.

George Hannon, 612 16th Street, Denver, Col.

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**THE OLDS MOTOR WORKS, 1250 Jefferson Ave.  
Detroit, Mich.**

BROOKS & HUMPHREY, DETROIT

# YOU CAN RIDE HOME IN IT



## Darracq Cars

**Delivered  
Immediately.**

### The "Darracq" Record

Winner of 47 Firsts out of  
52 Races in 1901.

Winner at Annual French  
Hill Climbing Trials at Gall-  
lon Hill, November, 1901.

The "DARRACQ" 16 H.P.  
cars were WINNERS with  
the remarkable speed, up an  
average 8 per cent. grade, of  
36 Miles an hour, defeating  
all 40 H. P. Panhards and 30  
H. P. Napiers.

The New York "Herald,"  
December 22, 1901, by cable  
from Paris, says Gabriel  
on a "Darracq" Car broke  
the record for light car for a  
flying kilometer and mile in

39.4-5 seconds and 1 minute 3 seconds, respectively, and a standing mile in 1 minute 13 seconds.

Awarded Gold Medal at Automobile Show, London, February, 1902, for Best Car of high powered light class.  
Also won the French economy tests in same class, February, 1902, with a record for 6¼ liters for 100 kilometers,  
approximately FORTY-FIVE MILES run on one gallon.

## American Darracq Automobile Co.

CHAS. D. COOKE, Secretary-Treasurer and General Manager

Agencies—C. J. FIELD, 133 West 38th St., Telephone 5504-38. HOMAN & SCHULZ, 2642 Broadway. AGENTS WANTED.

### OFFICE AND SALESROOMS

652 Hudson Street, - New York City

Near 14th St. Station, 9th Ave. E.I.R.R.

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## RHINEBECK WATER COMPANY,

RHINEBECK, N. Y.

OTTO GAS ENGINE WORKS,  
Philadelphia, Pa.

Mar. 10th, 1902.

GENTLEMEN:—

Sunday, Mar. 2d, our pumping station, which contains one of your engines for auxiliary power, was burned to the ground. The engine, which was in the hottest part, was only damaged to the extent of having the babbitt melted out of the pump hanger and plunger bearing, the temper taken out of several springs, and the washers in the gasoline pump damaged. Repairs were made as soon as possible and Wednesday morning, 3 a. m., the engine and pump were successfully started, the same running without stop, skip, or slow down, 85½ hours. It is now being run 16 hours a day.

We think it is remarkable that the engine was not ruined, and still more so its performance as noted above. We wish to express our appreciation of the satisfactory manner in which this engine has run ever since we have had it, and especially its recent performance.

Very respectfully,

(Signed) R. RAYMOND RIKERT,  
Sec. & Gen'l Mgr.

CONSIDER ACTUAL FACTS BEFORE PURCHASING TIRES. PROFIT BY THE EXPERIENCE OF OTHERS. DON'T WASTE YOUR MONEY ON THE WRONG KIND OF A TIRE.

## THE LONG DISTANCE TIRE POSITIVELY ELIMINATES "TIRE TROUBLES"

More than half of our business last year was done in replacing unsatisfactory thin-walled pneumatics.

Users of every prominent make of machine testify to the superiority of the "Long Distance."

Clock-Face  
Shows  
Cross Section



Our thick-walled pneumatic is preferred because it is the most serviceable and reliable tire manufactured. It is easier riding than the others and has proven ultimately to be the most economical.

Can You Afford  
to  
Experiment with  
Anything  
Else?

## NEW YORK BELTING & PACKING COMPANY, Ltd.

NEW YORK—25 Park Place  
BOSTON—24 Summer Street  
PHILADELPHIA—724 Chestnut Street  
BALTIMORE—101 Hopkins Place

### STORES

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INDIANAPOLIS—229 So. Meridian St.  
ST. LOUIS 411 North Third Street  
SAN FRANCISCO—509-511 Market St.

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# *The* **Average Man**

**\$650**

wants a vehicle that will carry him anywhere he wants to go and not require a skilled mechanic to keep it in order.



## *The* **SPAULDING** **Gasoline Runabout**

meets his every requirement. Starts from the seat. Runs 200 miles on one charge of gasoline and is **SIMPLE — DURABLE — ECONOMICAL.**

### **Spaulding Automobile & Motor Co.**

63 Chandler St., BUFFALO, N. Y.

### **NEW JERSEY AUTOMOBILE CO., Newark, N. J.**

Agents for New Jersey and New York City.

**Reliable Agents Wanted.**

*Tried,  
Tested  
and Proven.*

ADDRESS ALL CORRESPONDENCE  
TO

## Friedman Automobile Co.

No. 3 EAST VAN BUREN STREET,  
CHICAGO, ILL.

*17,000  
Miles of Actual  
Road Experience.*

Price, \$750.00.

Hydro-Carbon.

Capacity, 125  
Miles.



6 H. P., Actual,  
Starts from  
Seat. No Gear.

Simplest  
Machine Ever  
Constructed.

MANUFACTURED AT BELVIDERE, ILLS., BY THE

## NATIONAL SEWING MACHINE CO.

CAPACITY, 10 MACHINES PER DAY.

IMMEDIATE DELIVERY.

*We have done our  
own expert-  
menting*

*AGENTS  
WANTED*

When ordering your  
new machine spec-  
ify Clark Tires.

Easily Repaired.  
Cannot Rim Cut.  
Write for Catalogue.

**CLARK TIRES**

A DETACHABLE  
TIRE THAT FITS ANY  
CRESCENT RIM

**CLARK TIRE CO.**  
CHICAGO.  
LAKESIDE BLDG.

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Where the best is desired  
USE  
**SOLAR LAMPS**

**Solar Lamps for Automobiles, Cycles and Launches**  
Burn Acetylene Gas successfully, because of our patented system of gas generation. Project an intense white light 1,000 feet ahead of vehicle. Are made in a variety of styles and finishes, ranging in price from \$3.50 to \$50.00 each. THEY ALWAYS SATISFY. Write us for free catalogue.  
**BADGER BRASS MFG. CO., Kenosha, Wis.**

## If You Have Any Questions

About any make of vehicle or accessories we shall be pleased to answer them to the best of our ability.

What we don't know we can find out for you—perhaps better than you can for yourself.

If you are having troubles of any kind we can probably help you. Don't be bashful—send in your queries.

Information  
Bureau &

**Automobile Magazine**

**174 Broadway, Entrance No. 1 Maiden Lane  
New York**

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# MOTOR VEHICLES

For Business and Pleasure

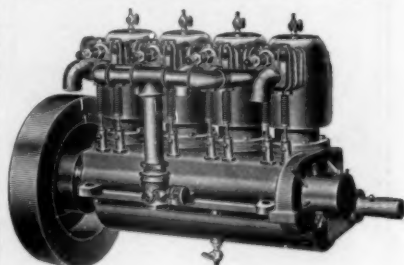
ENGINES, GEARS,  
MUFFLERS, ETC.  
DESBERON \$1.50  
PLUGS, —

Desberon Motor-Car Co.

51st Street and Twelfth Avenue  
NEW YORK CITY

## "THE RUTENBER" Upright Gasoline Motors

Both Air and Water cooled, for Automobiles, Launches and Stationary use, from 1 to 150 Horse Power.



Also Automobiles of every style—Delivery Wagons, Omnibuses and Heavy Trucks.

THE RUTENBER MFG. COMPANY, Inc.  
184 La Salle Street, Chicago  
ROOM 1104 THE TEMPLE

# WIRE WHEELS. STEEL RIMS.

Any Section.  
Any Diameter.  
For Vehicles  
from 300 to  
2500 pounds.

Any Section.  
Any Diameter.  
For Wood or  
Wire Wheels.

Steering Knuckles  
To Fit.

WE ARE THE OLDEST AND  
LARGEST COMPANY IN  
THIS LINE.

We want your business. : : : :  
We make one hundred to your one.  
For this reason we can save you  
money and give you better goods.

Send us your Specifications.

Weston-Mott Co., Utica, N. Y.

## THIS IS THE "RIG THAT RUNS"



### Everybody Knows It Now

They watched B 34 in the  
Endurance Run

NEVER MISSED A CONTROL  
NO MECHANICS  
NO HELPERS  
NOTHING SPECIAL

*Went in right cut of stock and went  
through on its merits, with a load of  
three passengers instead of two as in-  
tended.*

One of the best carriages at any  
price and undoubtedly the best value  
on the market.

Catalogs Free

## St. Louis Motor Carriage Co.

1120 Vandeventer Avenue, St. Louis, Mo.

## A Modern Automobile!

### "BUFFALO, SR." Automobile



Model 7. Price, \$800.

### AGENTS

We have the largest, the oldest, the  
most tried line, and the margin is  
liberal. **Guarantee Unquestioned**  
Write for proposition for exclusive  
agency. "DO IT NOW."

CATALOGS READY.

Adapted for use of Professional Men,  
Business Men and Families. Equipped  
with **6 B. H. P. Medium Speed Gasoline  
Motor**; low speed 6 miles, high speed  
25 miles. Strong and reliable trans-  
mission, roomy body, wide seat, long  
wheel base; capacity, 200 miles & filling.

Vehicle Right.

Price Right.

ALSO THE

### "AUTO-BI" Motor Bicycle



Model 4. Price, \$175. 2 1/4 H. P. Motor.

## Buffalo Automobile and Auto-Bi Co.

1200 NIAGARA STREET, BUFFALO, N. Y.

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## ***Take Your Camera With You***

WHEN YOU GO OUT FOR A RUN. TAKE SOME OF THE INTERESTING PICTURES YOU SEE AND SEND THEM TO US. THEN TELL YOUR EXPERIENCES IN YOUR OWN WAY, NOT FORGETTING THE AMUSING INCIDENTS OR THE MIS- HAPS—THEY ADD TO THE INTEREST.

## ***Prizes Will Be Given***

FOR THE BEST 1000 TO 2000 WORD STORIES AND FOR THE BEST PHOTO- GRAPHS. LET US HEAR FROM YOU.

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***Address***

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**174 Broadway, Entrance, No. 1 Maiden Lane.**  
**NEW YORK**



**G & J TIRES**  
 EMBODY  
 ALL ESSENTIALS  
 OF  
**PERFECTION**

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*Strength,  
 Durability,  
 Speed,  
 Ease of Repair*

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1902 CATALOGUES NOW READY  
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 INDIANAPOLIS - IND.

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MAKERS OF  
 G & J DETACHABLE TIRES  
 FOR ALL CLASSES OF VEHICLES

## Tropenas Department

**Steel Castings, 25 pounds and under.**

Estimates given on not less than 100 from each pattern.

**The Sargent Company**

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## Where to go—and How to get there

*Ask our  
Touring  
Department  
about it*

The many inquiries prove that this was needed, and the letters thanking us for the completeness of the information given indicate that the service is appreciated.

***No other magazine  
does this***=====

No matter where you wish to go—  
send along the inquiry (and stamp) to the

*Touring Department*

**Automobile Magazine**

**174 BROADWAY    ♡    ♡    NEW YORK**

THOMAS B. JEFFERY & CO. manufacture the  
**Rambler** Automobile



The most practical light touring car made. Fuel supply for 150 miles; safety starting device. Two speeds forward, one reverse. Operated easily by any lady. Safe for any road in any weather. Booklet C-X gives full particulars. Sent on request.

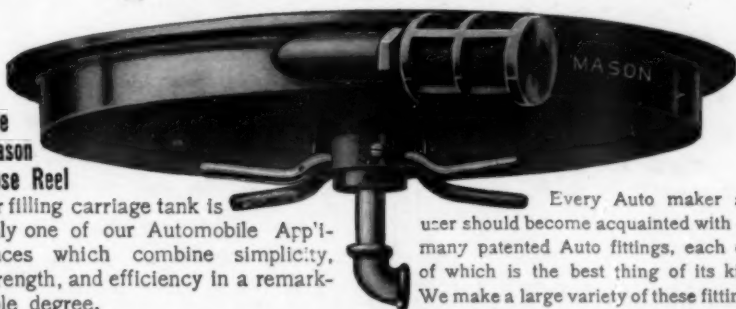
General Offices and Factory, - KENOSHA, WISCONSIN

**50%** of ALL **MASON**  
**AUTOS** are fitted with **ENGINES**

Send for Free Illustrated Descriptive Catalogue of them

The  
Mason  
Hose Reel

for filling carriage tank is only one of our Automobile Appliances which combine simplicity, strength, and efficiency in a remarkable degree.



Every Auto maker and user should become acquainted with our many patented Auto fittings, each one of which is the best thing of its kind. We make a large variety of these fittings.

**The Mason Regulator Co.,**  
**158 Summer St., BOSTON.**

(KINDLY MENTION THIS PAPER.)

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# Wood Wheels

Your customer wants them!

Why not give them the best?

They are made by

**Phineas Jones  
& Company**

301 to 313 Market Street  
NEWARK, N. J.

Take a  
**Kodak**

*with you*

ON YOUR AUTOMOBILE  
TRIPS

Kodaks load with film cartridges  
that will not break, no matter  
how rough the roads.

**Eastman  
Kodak Co.**

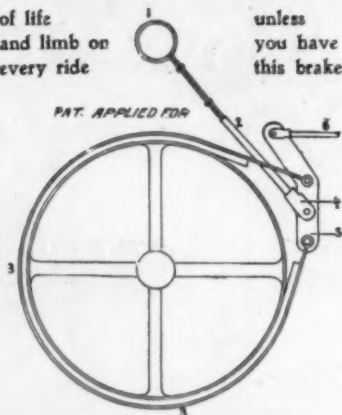
Rochester, N. Y.

Catalogue at  
the dealers' or  
by mail.

## You are in DANGER

of life  
and limb on  
every ride

unless  
you have  
this brake!



THIS BRAKE holds in either direction—  
does not bind and WILL HOLD YOU  
ANYWHERE. Better send a postal and  
find out more about it.

**N. J. Automobile Co.,**  
8 Central Ave., Newark, N. J.  
Agents Wanted.

## THE CONSTRUCTION OF A GASOLINE MOTOR VEHICLE. ❀ ❀ ❀

By C. C. BRAMWELL.

Best book we know of  
on the subject. Plain  
and practical. Gives  
directions for building  
the whole vehicle from  
motor to running gear.  
You want one. \$2.00.

AUTOMOBILE MAGAZINE  
174 Broadway  
New York.



# *Columbia* Electric Automobiles

Excel in efficiency, durability and radius of reliable action as well as in elegance of fittings and appointments.



COLUMBIA TONNEAU, MARK XIX.

We provide vehicles for every requirement of pleasure or business service, including Runabouts, Victorias, Surreys, Cabriolets, Tonneaus, Broughams, Hansoms, 'Buses, Wagonettes, Patrol Wagons, Chiefs' Wagons, Ambulances, Trucks, Vans.

*Write for our latest Catalogue and Price List.*

## Electric Vehicle Company

HARTFORD, CONN

*Western Agency and Salesrooms: 267 Wabash Avenue, Chicago*

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TIRE TROUBLES VANISH  
WHEN YOU USE ❧ ❧ ❧

## “WHALEBONE” TIRES.

### WHY? BECAUSE

- |  |  |
|--|--|
| 1st. They are puncture proof.  | 6th. They are more graceful in design and outline than any other tire, and give an unequalled finish to the wheel. |
| 2nd. They last twice as long as any other tire made.   | 7th. They maintain, under all loads, the same tread surface.   |
| 3rd. They are capable of carrying double the air pressure of any other tire without increasing their diameter. | 8th. The valves remain tight, as the column of air in the tire is less disturbed.                                  |
| 4th. They throw less mud and very much less dust.  | 9th. The resiliency is better distributed, and they ride easier.   |
| 5th. Being reinforced on the upper side they are never cut by the rim.   |  |

## American Rubber Works Co.,

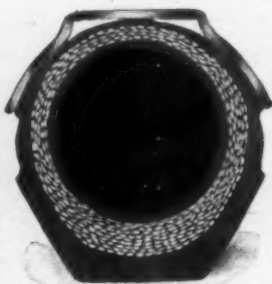
Successors to NEW BRUNSWICK RUBBER CO.

Manufacturers of High-Grade AUTO and CARRIAGE TIRES of all descriptions.

NEW YORK REPRESENTATIVE  
Room 1303—

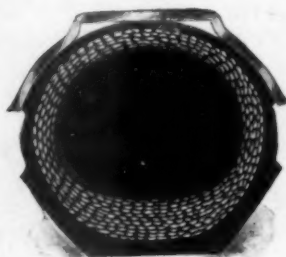
277 BROADWAY, NEW YORK.

Factory—NEW BRUNSWICK, N. J.



INFLATED

Send for  
Circular  
giving  
details of our  
Patent  
Stay Thread  
Fabric, also  
Testimonials,  
etc.



DEFLATED

In answering advertisements please mention THE AUTOMOBILE MAGAZINE.



"Good Machine Only."

## To Cut a Long Tail Short

We will not go into details to give you the names, address, etc., of the different parties who have purchased machines from us, but you can get them if you write us for same. You will find that they are all pleased.

### WHAT DO YOU THINK OF THESE BARGAINS?

No. 02 Loco, brand-new, built to order, 16 inch boiler and burner, heavy running gear, heavy spokes, duplex gauge, run one time in a race which it won, cost \$1,100. This machine latest model.	Price,	\$895 00
No. 03 Loco, brand-new, late model, cost \$950.	Price	880 00
No. 2 Loco, fine condition, good running order as a new machine.	A bargain at	495 00
Loco Surrey, brand-new.	Price,	885 00
Oldsmobile, in fine condition.		550 00
No. 03 Loco, panel seat, Victoria top, fine condition as a new machine.	A bargain at	895 00
No. 2 Late Model Locomobile, almost new, run about 300 miles.	Price,	600 00
Foster Steam Machine, 1901 model, almost new.		395 00

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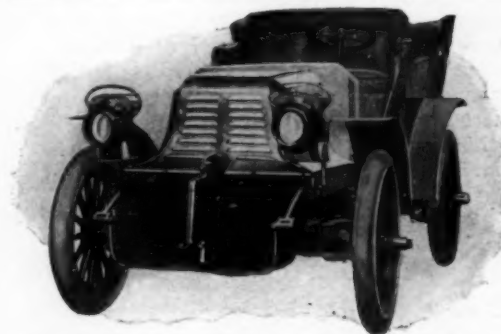
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Wheel Base 68 inches.

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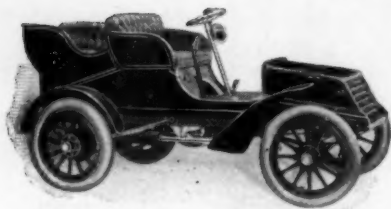
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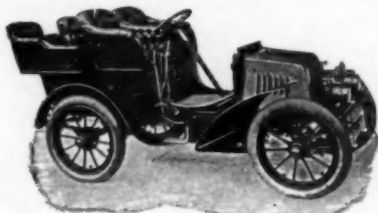
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Each day the way of the man who wants to build an automobile according to his own ideas or needs is made easier. Not only is ease of construction advanced, but value of product is also increased by



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When you see the patient owner of a refractory vehicle, remember they are patient because they found they had to be. Everyone kicks until satisfied that what he is kicking against is harder than patience.



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SUITABLE FOR STEAM, GAS OR ELECTRICITY

Our running gears are all equipped with our own make of self-contained spur compensating gears. No spreading of Rear Truss. Can supply the trade with Compensating Gears or Running Gears complete. Write for prices.

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**\$100**  
**MOTOR**  
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**\$125**

The American Motor Cycle has no superior.

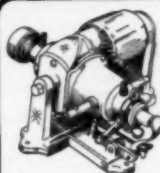
Built for Business

For particulars address

AMERICAN MOTOR CY. LE CO.

Box 39, Rahway, N. J.

**FOR SALE**—Steam Mobile, 1901 Model, good as new, in perfect operating condition. Equipped with Kelly generator, electric gauge lights and "Never Out" gas headlight. Cost \$850.00; will sell for \$575.00 f. o. b. cars. East Pittsburg, Pa. Address E. C. H., the Automobile Magazine.



To Owners of  
Gas and Gasoline  
Engines, Launches,  
Automobiles, Etc.

Do away entirely with ALL starting and running batteries and their constant trouble and expense by using instead an

### Auto-Sparker.

No belt—no switch—no batteries. Can be attached to any engine now using batteries. Fully guaranteed and costs less than 50 cents per year to operate. Write for descriptive booklet and testimonials.

MOTSINGER DEVICE MFG. CO.

38 Main Street,

Pendleton, Ind.

## An Ingenious Oiler

**P**ERFECT lubrication does not begin and end at the choice of the proper material for lubricating. Too many men have thought that it did and paid dearly for their mistaken ideas. The best oil in the world is the poorest possible lubricant when it fails to reach the points where lubrication is needed. The oiler here shown, which Frank F. Weston, 83 Chambers street, New



York, has made for him, comes as near filling the bill of what a perfect lubricator should be as anything we have seen. In this up-to-date oiler a quart of cylinder oil is carried and on top of this oil an air pressure is applied by a small pump, with the very natural result that the pressured oil flows freely through the stem immediately the feed valve is turned. With this oiler it will be readily seen there is no trouble in filling cylinder cups or properly lubricating the working parts of the motor in a very few seconds. Another very apparent advantage to the user is the cleanliness of the device and the fact that the very

heaviest grade of cylinder oil, which produces so much better results, can be used without the slightest inconvenience.

---

## Good Man to Know

To those who are at all familiar with the progress of the automobile industry in this country, the name of Herbert L. Towle is familiar, both as a writer and as a mechanical expert. In future Mr. Towle will be prepared to undertake mechanical draughting, machine designing and gas engine and automobile work in all branches at his new office, 123 Liberty street, New York city. There is need for such men as Mr. Towle and he should experience no difficulty in securing an abundance of clients from among the many who require just such service as Mr. Towle is most competent to give.

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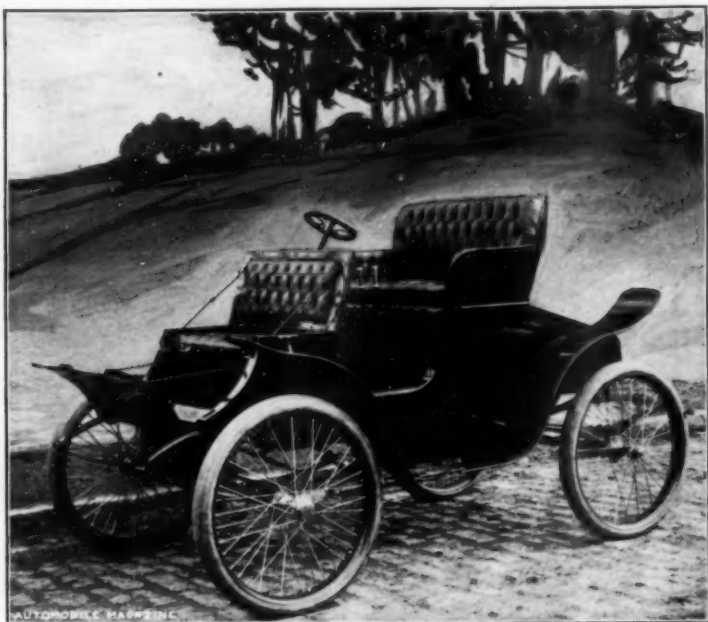
## Not So Strange as It Seemed

Mrs. Riggs—Isn't it strange that the life insurance company should cancel your policy just when it did?

Mr. Riggs—Yes, indeed, considering the fact the agent came to my office the other day trying to induce me to take out another \$5,000. I told him to wait. I had to step across the street to look at a new \$350 automobile I'd bought, but when I came back he was gone.

## Ramblers Are Ready

**T**HE very unusual favor which has been given the Rambler vehicles has been a source of surprise to the few people who were unacquainted with the reason therefor. The public's belief in the Rambler automobile is begotten of an acquaintance extending over 25 years with designer and maker, Thomas B. Jeffery, and the high class of work he has always turned out. When at the end of three years' experimentation Mr. Jeffery announced that he was prepared to place upon the market a gasoline vehicle which he guaranteed to be good enough to be called the Rambler,



St. Louis Motor Carriage Co.'s 8 h. p. Boston Model

the public did not ask for anything more, but promptly snapped up all he had on hand, and then, like Oliver Twist, clamored for more. With an output of five complete vehicles each day the Jeffery plant at Kenosha, Wis., stands ready to see that, despite the public's unusual demand, no friend of the Rambler is forced to wait for his vehicle until he no longer wants one. The reputation of Thomas B. Jeffery & Co. is a sufficient guarantee that any promises of delivery made by the company will be kept without any question.

## The Birthplace of the American Automobile

**I**N the beginning of the creation of the automobile world the star of the east and of progress stood over Kokomo, Indiana, and it was here that the first or nearly the first automobile was constructed. A clever graduate of the famous Worcester Polytechnic, Mr. Ellwood Haynes, was responsible for the establishing of a company now known throughout the world as The Haynes-Apperson Company. The extent of the Haynes-Apperson plant, two views of which are here shown, would surprise most people, and yet it is only the natural result of the growth of this popular firm's business, owing to their making and marketing from the very beginning a first-class article and nothing else.

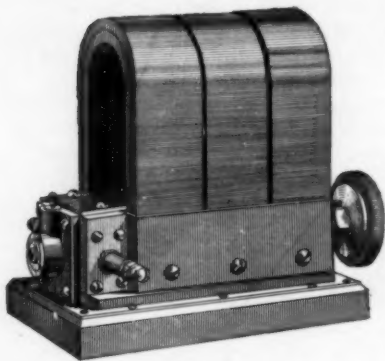
The first thing that impresses the visitor on entering the Haynes-Apperson office and the adjoining factory, is the busy appearance of things which show an active management and a full



drive of power. Only recently the company has completed the factory addition here shown wherein the floor space is 277 by 75 feet. One of the great advantages of the plant is that the owners are enabled to do their brazing and hardening by natural gas, which is said to be not only cheaper but to be productive of unequaled tempering and superior brazing. As a fair example of the unusual advantages enjoyed by the Haynes-Apperson Company, it may be noted that the factory's power is supplied by two large gas engines, the natural gas for which costs only \$2 per month each.

## THE NEW HENRICKS IGNITER

A SURE CURE FOR SPARKING TROUBLES. USED BY LEADING AUTO AND MARINE ENGINE BUILDERS. SUCCESSFULLY WORKS JUMP SPARK COIL.



Booklet telling all about it FREE.

**HENRICKS NOVELTY CO.,**  
617-619 So. Illinois St., Indianapolis, Ind.

## For Sale.

Two passenger "Toledo" steam carriage. Six H. P. engine. Substantial frame and tires. Good as new, having run only 500 miles. New top. Cost \$950, will sell for \$750.

Address "S-6"

This office.

### Automobilists, Attention!

I will install and guarantee a complete little charging plant, consisting of Engine, Dynamo and Switchboard, and all appliances, for \$600 and up to \$900. You can have your own private plant. Cost of charging very low. No skill required to operate. Write me for particulars.

J. CAMPION, 848 9th Ave., N. Y.

In answering advertisements please mention THE AUTOMOBILE MAGAZINE.

## PATENTS.

GEO. P. WHITTLESEY,  
Loan & Trust Building,  
Washington, D. C.

Terms reasonable. Pamphlet sent



## Dixon's Graphites for Automobiles.

We would like to send you samples and our pamphlet. You will be surprised to know the results that come from the use of properly prepared graphite in the way of increased speed and ease in running. It will cost you not over two cents to make the inquiry, and you may be saved many dollars.

**Joseph Dixon Crucible Co.**  
JERSEY CITY, N. J.



## A Darling, But Not Dear

**A**T the birthplace of the first steel tube mills in the United States, to wit, the Shelby, of Shelby, Ohio, is the automobile plant of Beardsley & Hubbs Manufacturing Company. The tube mills still give employment to nearly a thousand men, and of course, some of the mills' product goes into the up-to-date construction of the Darling automobile, the very serviceable looking vehicle turned out by the Beardsley & Hubbs Manufacturing Company. The construction of these carriages seems to be of the most thorough kind, and there is a noticeable absence of all gingerbread about the vehicles which is very attractive. The engine is of the four-cycle, double piston construction, and the control of same is accomplished by foot pressure, a foot pedal being conveniently located for that purpose. The transmission mechanism is located on the engine shaft, and has two forward speeds and the reverse. Direct connection from the differential shaft to the traction wheels enables the makers of the Darling to use a fixed rear axle. Every part of the vehicle is made in the company's factory. Great care is taken with the gasoline engine, each one of which is thoroughly tested in and outside of the factory before being turned over to its purchaser.

---

## Catching Up With Demand

To keep up with the demand for the company's extremely popular touring car has taxed even the unusual facilities possessed by the Winton Motor Carriage Company at Cleveland. But system tells in the long run and it is telling in the short one in the present instance, since even now the Winton people can see their way clear to being fully abreast of their orders in a very short time. "First come, first served," is a good rule however, and those who want a Winton when the enjoyment of its possession will be greatest, should act promptly and see that their names and their wants appear upon that roll of honor—the Winton waiting list.

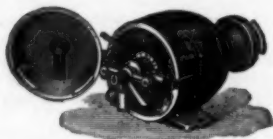
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## Making Clark's Handy

That the popular demand for Clark's detachable tires may be more quickly met, the makers have appointed Brandenburg Bros. & Alger, of 93 Lake street, Chicago, and 56 Reade street, New York, general sales agents for the United States. R. H. Croninger, whose business it is to see that the Clark tires are brought right and properly to public notice, says that his recent trip through the East has been highly satisfactory, and one of the results thereof will be that the factory of the Clark Tire Company, Chicago, will find its producing capacity thoroughly tested for the next few months.

## ECONOMICAL IGNITION

**I**T is very foolish to spend much money on ignition when the most reliable can be obtained for little money. We have interesting printed matter on this subject and will be glad to send you full details of the Apple Economical Igniting outfits for either touch or jump spark. We manufacture everything in the ignition line for automobile, marine or stationary engines.



### *The Dayton Electrical Mfg. Co.*

250 ST. CLAIR STREET, DAYTON, OHIO

New York stock carried by Charles E. Miller  
97 Reade Street, New York

Philadelphia Office  
The Bourse Bldg.

Chicago Office  
19-21 La Salle Street

# Waverley

## Electric Vehicles

MAXIMUM BATTERY CAPACITY,  
HIGHEST GRADE CONSTRUCTION,  
DUST PROOF WORKING PARTS,  
VERY SIMPLE CONTROL,  
FINISH OF THE HIGHEST CLASS.

These are Waverley features.

### INTERNATIONAL MOTOR CAR CO.,

Waverley Department,  
Indianapolis, Ind.

New York Branch:  
91 Fifth  
Avenue.



## THE BEARDSLEY & HUBBS MFG. CO.

SHELBY, OHIO, Manufacturers of

## The Darling Gasoline Automobile

### OUR PRICES

Style No. 1—Stanhope, . . .	\$ 950.00	Style No. 6—Combination Break,	\$1,350.00
" 2—Stanhope, . . .	1,025.00	" 7—Delivery Wagon, . . .	1,500.00
" 3—2 and 4 Passenger, . . .	1,100.00	" 8—Touring Car, . . .	1,250.00
" 5—Physician's Cab, . . .	1,500.00		

SEE OUR COMPLETE CATALOGUE. ADDRESS "DEPT. C"

## Canvasser —WANTED—

TO SELL  
**PRINTERS' INK**

**A** JOURNAL FOR ADVERTISERS—published weekly at five dollars a year. It teaches the science and practice of Advertising, and is highly esteemed by the most successful advertisers in this country and Great Britain. Liberal commission allowed.

ADDRESS  
**PRINTERS' INK, 10 Spruce St., N. Y.**

In answering advertisements please mention THE AUTOMOBILE MAGAZINE.

APR 30<sup>32</sup> 1902

## The Conrad Steam Carriage



MODEL 60

**Built for service  
Best for country driving  
Elegant in design and finish  
Large fuel and water capacity**

Send for catalog      Desirable agents wanted

**The Conrad Motor  
Carriage Co.**

1417 Niagara St.,      Buffalo, N. Y.

**National  
Electric  
"Always  
Reliable." Vehicles.**



ELECTROBILE MODEL 50, \$850.

Seven Other...

**New Nobby Nationals.**

New improvements that careful buyers  
will wisely investigate before buying.

CATALOG FOR THE ASKING.

**NATIONAL VEHICLE CO.**

East 22d St., INDIANAPOLIS, IND.

## THE AUTOMOBILE CONSTRUCTION CO.

MILWAUKEE, WIS.

Recognizing the fact that many people cannot pay the high price asked for some Automobiles, we are inviting propositions to make Automobiles of any design to order on contract plan. Will construct machines from parts furnished if required. Send for photos of machines already built. *Machines built from \$350 up.* Our new Spark Coll of new and special design, listing at special low price, will be ready for the market shortly.

## THE AUTOMOBILE CONSTRUCTION CO.

MILWAUKEE, WIS.

HERMAN C. MUELLER, Manager.



*Toledo*



**A STEAM VEHICLE of best possible design; built of the highest grade stock that can be procured. That's the "TOLEDO" Story.**

Write for full information.

**International Motor Car Co.**  
Toledo, Ohio.

NEW YORK BRANCH: 91 Fifth Avenue.

In answering advertisements please mention THE AUTOMOBILE MAGAZINE.

# The Automobile Magazine

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VOL. IV No. 6

JUNE 1902

PRICE 25 CENTS

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AGENCY FOR FOREIGN SUBSCRIPTIONS:

INTERNATIONAL NEWS COMPANY,

BREMS BUILDINGS, CHANCERY LANE  
LONDON, E. C.

STEPHEN STRASSE, No. 18  
LEIPZIG

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Price 25 Cents a Number; \$3.00 a Year  
12s. 4d. Sterling

# The Baker Electric

When you see the BAKER ELECTRIC, you see the best made, most efficient and finest finished Electric Automobile in the country. We manufacture Stanhopes with Victoria or open top for ladies' driving or physicians' use, and two styles of Runabouts that have no equal. Send for Catalog.

**The BAKER MOTOR  
VEHICLE COMPANY**  
CLEVELAND, OHIO

## To-day, Not To-morrow

IS THE TIME TO ORDER  
YOUR AUTOMOBILE WITH

## FISK TIRES

WHY? BECAUSE THEY  
ARE THE BEST

## FISK RUBBER COMPANY

Chicopee Falls, Mass.

### BRANCHES:

Boston Springfield New York  
Philadelphia Syracuse Buffalo  
Detroit Chicago San Francisco

In answering advertisements please mention THE AUTOMOBILE MAGAZINE.

# Waverley

## ELECTRIC AUTOMOBILES

Flexible gear prevents destruction of battery, adds to comfort of passengers.

Power equipment of unquestioned superiority designed to give satisfaction.

Quality and not cost the primary consideration, construction and finish therefore unequalled.

No delay in filling orders. Our facilities are designed to meet large demands.

**International Motor Car Co.**  
Waverley Department,  
Indianapolis, - - Ind.

BRANCH AGENCIES:  
New York Branch, 91 Fifth Ave., N. Y.  
City. Brooklyn Branch, 342 Flat-  
bush Ave., Brooklyn, N. Y. Bos-  
ton Branch, 223 Columbus Ave.,  
Boston, Mass. Providence Branch,  
15 Snow Street, Providence,  
R. I. Hartford Branch, Hartford, Conn.  
Washington Branch,  
817 14th St.,  
N.W., Wash-  
ington, D. C.  
Phila., Pa.,  
909 Arch St.



## MOTOR VEHICLES

For Business and Pleasure

ENGINES, GEARS,  
MUFFLERS, ETC.

DESBERON \$1.50  
PLUGS, - 1 -

## Desberon Motor-Car Co.

51st Street and Twelfth Avenue  
NEW YORK CITY



## YOU CAN RIDE HOME IN IT



## DARRACQ CARS

DELIVERED IMMEDIATELY

**The "Darracq" Record** Winner of 47 Firsts out of 53 Races in 1901.  
Winner at Annual French Hill Climbing Trials at Gaillon Hill, November, 1901.

The "DARRACQ" 16 H.P. cars were WINNERS with the remarkable speed, up an average 8 per cent. grade, of 36 Miles an hour, defeating all 40 H.P. Panhards and 50 H.P. Napiers.

The New York "Herald," December 22, 1901, by cable from Paris, says Gabriel on a "Darracq" Car broke the record for light car for a flying kilometer and mile in 30.4-5 seconds and 1 minute 3 seconds, respectively, and a standing mile in 1 minute 13 seconds.

Awarded Gold Medal at Automobile Show, London, February, 1902, for Best Car of high powered light class. Also won the French economy tests in same class, February, 1902, with a record for 6 1/4 liters for 100 kilometers, approximately FORTY-FIVE MILES run on one gallon.



NOTE  
EASY  
ACCESS  
TO  
ENGINE

### American Darracq Automobile Co.

CHAS. D. COOKE, Secretary-Treasurer and General Manager

F. A. LA ROCHE, Sole Sales Manager,  
133 West 34th St. Telephone 5304-38.

HOMAN & SCHULZ, 2642 Broadway.

OFFICE AND SALESROOMS

652 Hudson St., New York City  
Near 14th St. Station, 9th Ave. E.I.R.R.

AGENTS WANTED

What **GUARANTEE** have you that the Gas or Gasoline engine you are thinking of buying will develop the Actual Horse Power at which it is rated? Does the maker know or is he guessing?

Every **OTTO** engine is thoroughly tested and the **POWER** accurately determined by brake and indicator. The test is recorded and the purchaser can always have a certified copy of it—an assurance worth considering.

## THE OTTO GAS ENGINE WORKS

Agents as usual.

PHILADELPHIA, PA.

THE WINNER IN EVERY SPEED AND ENDURANCE CONTEST ENTERED  
THAT'S WHAT WE  
CAN SAY FOR **THE "LONG DISTANCE" TIRE**



### L. I. ENDURANCE RUN

Of the several sets entered not one tire caused the slightest trouble. No punctures, accidents or other mishaps.

The Haynes-Apperson Machines winning the Blue Ribbon were equipped with them. Last year's Winner of this Run also had them on. They're still on the machine, having given over 4,000 miles service to date without any injury whatever.

### N. Y.-ROCHESTER RUN

These were the only tires finishing this Run with absolutely no "tire troubles," thereby earning the exclusive right to a 100 per cent. Record.

### SPEED CONTESTS

at Buffalo, Detroit, Chicago, etc. In every instance these tires have been on the winning machines wherever entered, both light and heavy.

**WHY EXPERIMENT WITH ANYTHING ELSE**

## NEW YORK BELTING & PACKING COMPANY, Ltd.

NEW YORK—25 Park Place  
BOSTON—24 Summer Street  
PHILADELPHIA—724 Chestnut Street  
BALTIMORE—101 Hopkins Place

### STORES

CHICAGO—150 Lake Street  
INDIANAPOLIS—229 So. Meridian St.  
ST. LOUIS—411 North Third Street  
SAN FRANCISCO—509-511 Market St.

In answering advertisements please mention THE AUTOMOBILE MAGAZINE.

# The Average Man

# \$650

wants a vehicle that will carry him anywhere he wants to go and not require a skilled mechanic to keep it in order.



## The **SPAULDING** Gasoline Runabout

meets his every requirement. Starts from the seat. Runs 200 miles on one charge of gasoline and is **SIMPLE — DURABLE — ECONOMICAL.**

## Spaulding Automobile & Motor Co.

63 Chandler St., BUFFALO, N. Y.

## NEW JERSEY AUTOMOBILE CO., Newark, N. J.

Agents for New Jersey and New York City.

**Reliable Agents Wanted.**

Tried,  
Tested  
and Proven.

ADDRESS ALL CORRESPONDENCE  
TO

17,000  
Miles of Actual  
Road Experience.

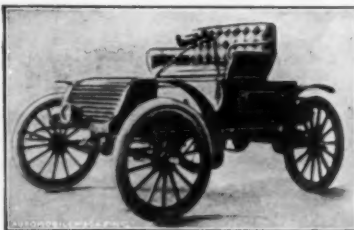
## Friedman Automobile Co.

No. 3 EAST VAN BUREN STREET,  
CHICAGO, ILL.

Price, \$750.00.

Hydro-Carbon.

Capacity, 125  
Miles.



6 H. P., Actual,  
Starts from  
Seat. No Gear.

Simplest  
Machine Ever  
Constructed.

MANUFACTURED AT BELVIDERE, ILLS., BY THE

## NATIONAL SEWING MACHINE CO.

CAPACITY, 10 MACHINES PER DAY.

IMMEDIATE DELIVERY.

We have done our  
own experi-  
menting

AGENTS  
WANTED



The tires on an automobile either increase or retard its speed. Resilient tires give additional power and greater mileage.

## G & J TIRES

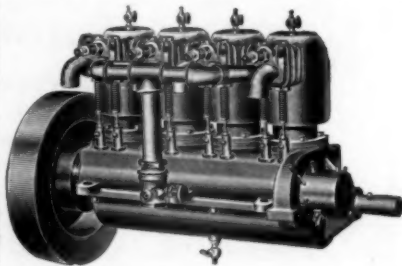
have been proven the speediest of all vehicle tires, and they wear longest. Descriptive catalog and full information on request.

G & J TIRE CO., INDIANAPOLIS.

## "THE RUTENBER"

### Upright Gasoline Motors

Both Air and Water cooled, for Automobiles, Launches and Stationary use, from 1 to 150 Horse Power.



Also Automobiles of every style—Delivery Wagons, Omnibuses and Heavy Trucks.

THE RUTENBER MFG. COMPANY, Inc.

184 La Salle Street, Chicago

ROOM 1104

THE TEMPLE

In answering advertisements please mention THE AUTOMOBILE MAGAZINE.

The best thing on wheels



The  
Oldsmobile

The best thing on wheels, because with practical merit is combined mobility in control, economy in operation and a dependable wearing quality.

It's up to the mark of the highest expectation every time. Pretty as a picture, speedy as a race horse, and travels all roads with equal smoothness and safety.

The ideal mobile vehicle for pleasure and for business. The delight of the family, and "just what the doctor ordered" for the business man. In a class by itself.

**Price \$650.00, f. o. b. Detroit**

#### SALES AGENTS

Oldsmobile Co., 138 W. 38th Street, New York.	Autovehicle Co., Newark.	F. W. Stockbridge, Paterson.
Oldsmobile Co., 1124 Connecticut Ave., Washington, D. C.	William E. Metzger, 254 Jefferson Ave., Detroit.	George Hannan, 612 16th St., Denver.
Quaker City Automobile Co., Philadelphia.	A. F. Chase & Co., Minneapolis.	The Manufacturers Co., San Francisco.
H. B. Shattuck & Son, Boston.	Ralph Temple Co., 293 Wabash Ave., Chicago.	Banker Bros. Co., Pittsburg.
Day Automobile Co., St. Louis and Kansas City.	Olds Gasoline Engine Works, Omaha.	Sutcliffe & Co., Louisville.
Oldsmobile Co., Cleveland.	Fisher Automobile Co., Indianapolis.	Hyslop Bros., Toronto.
Rochester Auto Co., Rochester.	Brown, Thompson & Co., Hartford.	Clark & Hawkins, Houston, Tex.
		C. H. Johnson, Atlanta.
		Oldsmobile Co., Milwaukee.

Send for handsome illustrated descriptive book.

## Olds Motor Works

1250 Jefferson Avenue, Detroit, U. S. A.



When ordering your  
new machine spec-  
ify Clark Tires.

Easily Repaired.  
Cannot Rim Cut.  
Write for Catalogue.



## Wood Wheels

Your customer wants  
them!

Why not give them  
the best?

They are made by

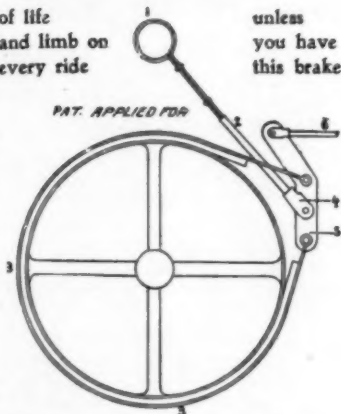
**Phineas Jones  
& Company**

301 to 313 Market Street  
NEWARK, N. J.

## You are in DANGER

of life  
and limb on  
every ride

unless  
you have  
this brake!

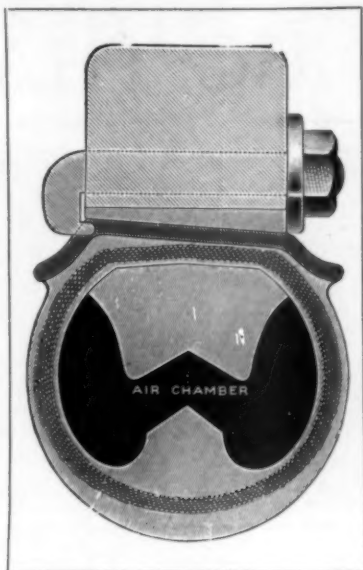


THIS BRAKE holds in either direction—  
does not bind and WILL HOLD YOU  
ANYWHERE. Better send a postal and  
find out more about it.

**N. J. Automobile Co.,**  
8 Central Ave., Newark, N. J.  
Agents Wanted.

In answering advertisements please mention THE AUTOMOBILE MAGAZINE.

**Security**  
**Durability**  
**Simplicity**  
**Economy**  
**Efficiency**



ARE FIVE SALIENT FEATURES OF

**MUNGER**

**Non-Collapsible Pneumatic Tires**

Specify them on your vehicles and thus overcome the usual annoyance and expense attendant upon the use of other tires.

**Munger Automobile Tire Co.,**

**TRENTON, N. J.**

## THIS IS THE "RIG THAT RUNS"



**Everybody Knows It Now**

**They watched B 34 in the  
Endurance Run**

**NEVER MISSED A CONTROL  
NO MECHANICS  
NO HELPERS  
NOTHING SPECIAL**

*Went in right out of stock and went  
through on its merits, with a load of  
three passengers instead of two as in-  
tended.*

*One of the best carriages at any  
price and undoubtedly the best value  
on the market.*

**Catalogs Free**

### St. Louis Motor Carriage Co.

1120 Vandeventer Avenue, St. Louis, Mo.

## ECONOMICAL IGNITION

**I**T is very foolish to spend much money on ignition when the most reliable can be obtained for little money. We have interesting printed matter on this subject and will be glad to send you full details of the Apple Economical Igniting outfits for either touch or jump spark. We manufacture everything in the ignition line for automobile, marine or stationary engines.



### The Dayton Electrical Mfg. Co.

250 ST. CLAIR STREET, DAYTON, OHIO

New York stock carried by Charles E. Miller  
97 Reade Street, New York

Philadelphia Office  
The Bourse Bldg.

Chicago Office  
19-21 La Salle Street

## The Conrad Steam Carriage



MODEL 60

**Built for service  
Best for country driving  
Elegant in design and finish  
Large fuel and water capacity**

Send for catalog

Desirable agents wanted

### The Conrad Motor Carriage Co.

1417 Niagara St.,

Buffalo, N. Y.

In answering advertisements please mention THE AUTOMOBILE MAGAZINE.

# A Record for American Cars.

FIRST TWO AMERICAN CARS AND FIRST TWO FOUR-PASSENGER CARS TO FINISH IN THE LONG ISLAND ENDURANCE CONTEST.

**W**E entered three cars, two being of our latest model Tonneau, carrying four persons, and one being our regular Touring Car, carrying two persons. All finished the entire run of 100 miles without a stop (except to repair one punctured tire, not penalized under the rules).

Our cars were too fast to conform to the speed limit of the contest, **all finishing ahead of time.** The two Tonneaus were **the first American cars and the first four-passenger cars to finish,** notwithstanding the fact that one of them stopped twenty-nine minutes to repair a tire.

One Tonneau averaged better than twenty miles an hour, breaking the record for American cars over this course; the other better than nineteen miles an hour, while the Touring Car, the fourth American car to finish, averaged about eighteen miles an hour.

The only cars to finish ahead of ours were high-powered French racing cars, with rear seats removed, carrying only two persons.

## The following extracts from the daily press speak for themselves:

So far as the great contest is concerned, it was a success beyond expectation. That it will be of incalculable benefit to the trade and sport of automobiles admits of no doubt. That it demonstrated the practicability, endurance and economy of motor vehicles, even the skeptic must admit, and, far more important than anything else, it showed the wonderful progress that has been made by American manufacturers during the past year.

The extraordinary work of the Fournier-Searchmont cars is a matter of favorable comment among automobilists in general. It was the first American machine to arrive without having made a stop of any kind. The second Searchmont to arrive was delayed half an hour on account of a disabled tire.—*New York Mail and Express.*

Speed, reliability and economy in automobiles were proved beyond question in the Long Island Automobile Club's 100-mile endurance test over Long Island roads yesterday. The development of motor vehicle construction showed a remarkable advance over last year.

Probably the most surprising event of the whole journey was the notable performances of the Fournier-Searchmont cars, that were the first American machines to finish, and naturally they are credited with having made faster time than any American machine in the run. R. A. Green's machine was fifth at the finish in 5 hours, 21 minutes, 30 seconds. It was followed four minutes later by E. D. Gallaher in a Fournier-Searchmont. —*Philadelphia Ledger.*

## FOURNIER-SEARCHMONT AUTOMOBILE CO.

1231 Orkney Street, Philadelphia

AGENCIES: { JOHN WANAMAKER, New York, Philadelphia  
GITHENS BROTHERS, Chicago

In answering advertisements please mention THE AUTOMOBILE MAGAZINE.

# If You Have Any Questions

About any make of vehicle or accessories we shall be pleased to answer them to the best of our ability.

What we don't know we can find out for you—perhaps better than you can for yourself.

If you are having troubles of any kind we can probably help you. Don't be bashful—send in your queries.

Information  
Bureau &

***Automobile Magazine***

***174 Broadway, Entrance No. 1 Maiden Lane  
New York***

## WIRE WHEELS. STEEL RIMS.

Any Section.  
Any Diameter.  
For Vehicles  
from 300 to  
2500 pounds.

Any Section.  
Any Diameter.  
For Wood or  
Wire Wheels.

Steering Knuckles  
To Fit.

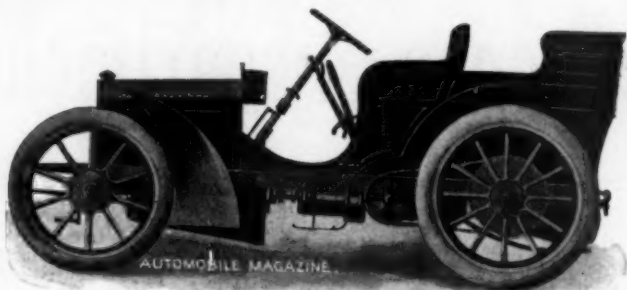
**WE ARE THE OLDEST AND  
LARGEST COMPANY IN  
THIS LINE.**

We want your business. : : : :  
We make one hundred to your one.  
For this reason we can save you  
money and give you better goods.

Send us your Specifications.

**Weston-Mott Co., Utica, N. Y.**





*The*  
**Road You Take**

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MAY MAKE OR MAR YOUR TRIP

You can save all trouble on this score by sending an inquiry — with stamp — to the

**Touring Department**  
**OF THE AUTOMOBILE MAGAZINE**

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*No. 1 Maiden Lane, New York*

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Many are taking Advantage of this Information. Why not You?

ROUTES AND MAPS APPEAR IN EVERY  
===== ISSUE OF THE MAGAZINE =====


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# Tropenas Department

## Steel Castings, 25 pounds and under.

Estimates given on not less than 100 from each pattern.

# The Sargent Company



## Toledo

Every requirement truly anticipated. Mechanical perfection in artistic form. A gentleman's pleasure vehicle. One control lever does the work of two on other carriages. Cost of operation cut in half; safety doubled. Water tanks filled automatically. Air and water supplied by the engine; manual effort minimized.

### Toledo Quality Counts

Correspondence Promptly Answered  
Orders Immediately Filled.

**INTERNATIONAL MOTOR CAR CO.**  
**TOLEDO, OHIO**

#### BRANCH AGENCIES

New York Branch, 91 5th Ave., New York City. Brooklyn Branch, 142 Flatbush Av., Brooklyn, N. Y. Boston Branch, 223 Columbus Ave., Boston, Mass. Providence Branch, 15 Snow St., Providence, R. I. Hartford Branch, Hartford, Conn. Washington Branch, 817 14th St., N. W., Washington, D. C.

## THE AUTOMOBILE CONSTRUCTION CO.

MILWAUKEE, WIS.

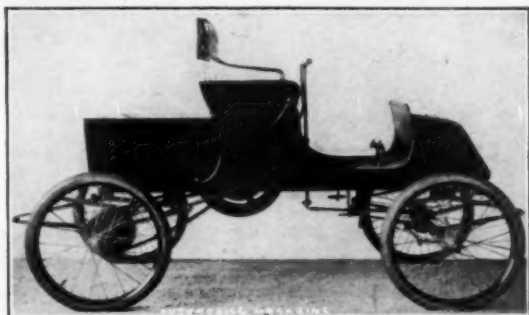
Recognizing the fact that many people cannot pay the high price asked for some Automobiles, we are inviting propositions to make Automobiles of any design to order on contract plan. Will construct machines from parts furnished if required. Send for photos of machines already built. *Machines built from \$350 up.* Our new Spark Coil of new and special design, listing at special low price, will be ready for the market shortly.

## THE AUTOMOBILE CONSTRUCTION CO.

MILWAUKEE, WIS.

HERMAN C. MUELLER, Manager.

THOMAS B. JEFFERY & CO. manufacture the  
**Rambler Automobile**



The most practical light touring car made. Fuel supply for 150 miles; safety starting device. Two speeds forward, one reverse. Operated easily by any lady. Safe for any road in any weather. Booklet C-X gives full particulars. Sent on request.

General Offices and Factory, - KENOSHA, WISCONSIN

## A Modern Automobile!

### "BUFFALO, SR." Automobile



Model 7. Price, \$800.

### AGENTS

We have the largest, the oldest, the most tried line, and the margin is liberal. **Guarantee Unquestioned** Write for proposition for exclusive agency. "DO IT NOW."

CATALOGS READY.

Adapted for use of Professional Men, Business Men and Families. Equipped with **6 B. H. P. Medium Speed Gasolene Motor**; low speed 6 miles, high speed 25 miles. Strong and reliable transmission, roomy body, wide seat, long wheel base; capacity, 200 miles 1 filling.

**Vehicle Right.**

**Price Right.**

ALSO THE

### "AUTO-BI" Motor Bicycle



Model 4. Price, \$175. 2½ H. P. Motor.

**Buffalo Automobile and Auto-Bi Co.**

1200 NIAGARA STREET, BUFFALO, N. Y.

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TIRE TROUBLES VANISH  
WHEN YOU USE \* \* \*

## "WHALEBONE" TIRES.

### WHY? BECAUSE

- |  |  |
|--|--|
| 1st. They are puncture proof.  | 6th. They are more graceful in design and outline than any other tire, and give an unequalled finish to the wheel. |
| 2nd. They last twice as long as any other tire made.   | 7th. They maintain, under all loads, the same tread surface.   |
| 3rd. They are capable of carrying double the air pressure of any other tire without increasing their diameter. | 8th. The valves remain tight, as the column of air in the tire is less disturbed.                                  |
| 4th. They throw less mud and very much less dust.  | 9th. The resiliency is better distributed, and they ride easier.   |
| 5th. Being reinforced on the upper side they are never cut by the rim.   |  |

## American Rubber Works Co.,

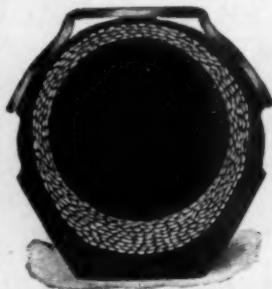
Successors to NEW BRUNSWICK RUBBER CO.

Manufacturers of High-Grade AUTO and CARRIAGE TIRES of all descriptions.

NEW YORK REPRESENTATIVE  
Room 1303—

277 BROADWAY, NEW YORK.

Factory—NEW BRUNSWICK, N. J.



INFLATED

Send for  
Circular  
giving  
details of our  
Patent  
Stay Thread  
Fabric, also  
Testimonials,  
etc.



DEFLATED

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Established 1818

# Brooks Brothers

BROADWAY (Cor. 22d St.) NEW YORK CITY



Gentlemen's Automobile Rain and Dust Coats, Chauffeurs' Liveries and Furnishings, Gold and Silver Plated French Horns, Imported Mica Facelieres, Goggles, Masks and all other sundries.

Thirty page catalogue, fully illustrated, mailed on request.

## STORAGE, REPAIR AND CHARGING STATIONS

As some stations have no facilities for repairing or charging electric vehicles, they will be designated as follows:

**S. R. C.**—Store, repair and charge all makes.

**S. R.**—Store and repair all makes.

**S.**—Store all makes.

When only special kinds are handled it will be so stated.

### CALIFORNIA

LOS ANGELES—Burke Bros., 485 So. Spring street, Tel. "Green 1682." E. R.  
SAN FRANCISCO—C. A. Hawkins, 30 Post Bldg. Tel. Block 1106. S. R. C.  
SAN FRANCISCO—Durham, Carrigan & Hayden, 17 Beale St.  
SAN JOSE—Christman Motor Cge. Co.

### COLORADO

DENVER—Felker Cycle Co., 1533-39 Tremont St. Telephone, Main 2160. S. R.  
DENVER—Geo. W. Hannan Auto. Agency. S. R. C.

### CONNECTICUT

GUILFORD—E. N. Butler, S. Public Sq. Telephone, 9-3. S.  
HARTFORD—Hartford Automobile Station, 43 Wells St. Telephone, 165. S. R. C.  
HARTFORD—Post & Lester Co. S. R. C.

### DELAWARE

NEWARK—H. B. Wright Co. Telephone, 22 Delmonia. S. R. C.  
SMYRNA—Alfred Tilghman, cor. Commers and Del. Sts. S. R.

### GEORGIA

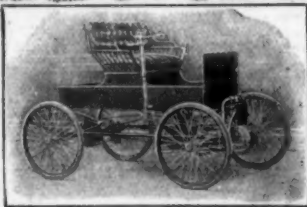
SAVANNAH—R. V. Conuroat, 346-48 Bull St. Telephone, 650 Bell & Ga. S. R.

### ILLINOIS

CHICAGO—A. C. Banker Auto. Co., 35th St. and Grand Blvd., and 17 Plymouth St. Telephone, So. 914. S. R. C.  
CHICAGO—Frank S. Betz & Co. Telephone, 340 Lake View.  
CHICAGO—Jewitt El. Inst. Co., 358 Dearborn St.  
CHICAGO—Ralph Temple, 293-95 Wabash Ave. Telephone, Harrison 2333. S. R. C.  
CHICAGO—Hagmann & Hammerly, 931 Van Buren St. Telephone, West 252. S. R.  
CHICAGO—Electric Vehicle Co., 267 Wabash Ave. S. R. C.  
CHICAGO—Githins Bros., 1312-14 Michigan Ave. Telephone, So. 1658. S. R. C.  
CHICAGO—Pardee & Co., 1404-6 Michigan Blvd. Tel. Calumet 2523. S. R. C.  
BELLEVILLE—Dobschutz & Procasky, 411 E. Main St. Telephone, 384.  
PEORIA—The Bartholomew Co. 111-121 Fedonia street. S. R.

## CRESTMOBILE

MOTORS  
SPARKING PLUGS  
AND  
COILS



SIMPLE  
DURABLE  
POWERFUL  
COMFORTABLE

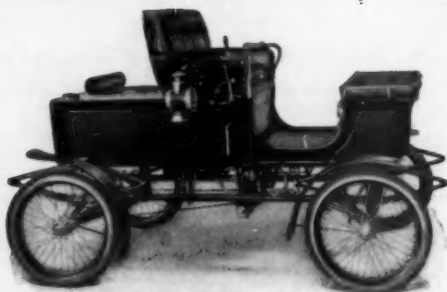
PRICE \$550. & 600.

CREST MFG. CO. CAMBRIDGEPORT MASS.

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# Locomobile



**Locomobile Touring Car—Model A**

**This car is specially designed for long distance running over all kinds of roads. Some of the special features of this car are as follows:**

73 inch Wheel base.  
 Extra large gasoline and water tank capacities.  
 Three Water Pumps.  
 Automatic pressure on the burner,  
 Large, powerful engine.  
 Strong Roller Chain.  
 Two Double Acting Brakes.  
 Automatic lubrication of crossheads.  
 Improved method of Cylinder lubrication.  
 Improved and simplified piping, giving great accessibility.  
 to working parts.  
 New and convenient method of carrying tools.  
 Unusually complete equipment.

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**Write for new catalogue giving full description of new models**

**The Locomobile Company of America**

**7 EAST 42d STREET, NEW YORK**

**NEW YORK SALESROOM**  
 Broadway & 76th Street.

**BRANCHES**  
 Boston, Philadelphia, Chicago, London

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# Packard Automobiles



THIS IS OUR NEW MODEL F.

Are built for those to whom tried out efficiency is the first requisite. Past achievements speak for themselves.

Brought strictly up-to-date and are the acme of simplicity and reliability. We make no attempt to compete on price. If you are interested in this kind of a carriage, write us, or better

Ask the man who owns one.

## Ohio Automobile Co., WARREN, OHIO.

Eastern Department, Adams, McMurtry Company, 114 Fifth Avenue, New York.

### INDIANA

FORT WAYNE—Brosino & Brosino. S. R.  
FORT WAYNE—Randall Wheel Co., 202-206 W. Berry street. Telephone, 311. S. R. C.  
INDIANAPOLIS—H. Y. Hearsey Co. "On the Circle." Telephone, 1610. S. R. C.  
INDIANAPOLIS—Fisher Auto. Co. Telephone, 3545. S. R. C.  
INDIANAPOLIS—H. T. Hearsey, 34-36 Monument Pl. S. R. C.  
INDIANAPOLIS—Auto. Storage & Repair Co., 23 E. Ohio St.  
INDIANAPOLIS—Sullivan & Merz, 25 E. Ohio street. Tel. 2776. S. R. C.  
KOKOMO—Apperson Bros. Tel. 15. S. R. C.  
MUNCIE—C. S. Wachtell Son & Co. S. R. C.  
SOUTH BEND—M. A. Shuey, 110 W. Wayne street. S. R. C.  
TERRE HAUTE—R. Chaney & Bro. Tel. 7522 Main. S. R.

### KENTUCKY

LOUISVILLE—Prince Wells, 632 Fourth Ave. S. R. C.  
LOUISVILLE—Sutcliffe & Co. S. R. C.

### LONG ISLAND

AMITYVILLE—C. Dittman, Park Ave. S. R. C.  
BROOKLYN—Brooklyn Automobile Co., 1239 Fulton St. Telephone, 705 Bedford Branch. S. R. C.  
BROOKLYN—Champion Automobile Co., 68 Montague St. Telephone, 1868 Main. S. R.  
BROOKLYN—International Motor Car Co., 342-344 Flatbush Ave. Telephone, 1681 Main. S. R. C.  
BROOKLYN—F. Lauterbach, Flatbush and Ocean Aves. Telephone, 4261 Flatbush. S. R. C.

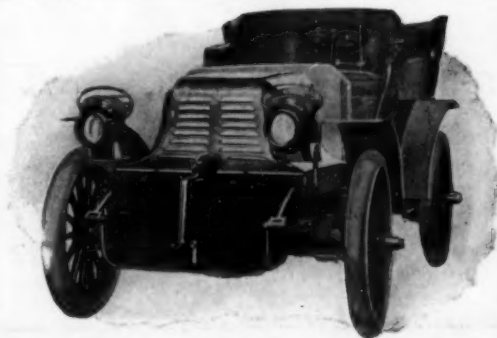
BROOKLYN—Patterson & Shaw, 53 Schermerhorn St. Telephone, 3710 Main. S. R. C.  
BROOKLYN—Alex Schwalbach, 473 Flatbush Ave. S. R.  
BROOKLYN—Brooklyn Auto. Co., 1239-43 Fulton St. S. R. C.  
BROOKLYN—Lewis Cycle Co., 338-40 Lewis Ave. Telephone, 1509 Bedford. S. R. C.  
BROOKLYN—L. I. Motor Co., 32 Hanson Pl. Telephone, 3750 Main. S. R. C.  
FAR ROCKAWAY—D. S. Starks. Telephone, 11-A. S. R.  
FLUSHING—Nicks Auto Depot, 81 Grove St. Telephone, 233-a Flushing. S. R. C.  
GARDEN CITY—August Porrier, Franklin St. Telephone, 42-A. Charge.  
GLEN COVE, L. I.—J. S. Patrick. S. R. C.  
HUNTINGTON—Arthur & Flessel, 53 Main St. S. R.  
ROCKVILLE CENTER—Chas. E. Edwards. S. R.  
SOUTHAMPTON, L. I.—J. S. Allen. Tel. 43-I. S. R.

### MARYLAND

BALTIMORE—Balt. Motor Carriage Co., 327 N. Calvert St. Telephone, 3296Y. S. R.  
BALTIMORE—O. L. Gooden, 1118 Cathedral St. Telephone, B. 1121. C. & P. 1199-A.  
WESTMINSTER—Wm. N. Keefer, 88-92 E. Main St. Telephone, W. M. 36. S.

### MASSACHUSETTS

ABINGTON—Lamson Machine Co. S. R. C.  
ANDOVER—H. F. Chase, Musgrove Bldg. Telephone, 118-3.  
BOSTON—Automobile Headquarters, 23 Stanhope St. Telephone, 842-2 Tremont. S. R. C. Also rents steam and gasoline carriages.



## GASMOBILES

American Built Immediate Deliveries

Look up our Record: First Prizes and Blue Ribbons wherever shown. Stanhope, Tonneau & Wagonette types. Strong and simple construction. Three and four cylinders. Best Type of Ignition. Latest Style of Igniters. Easy to control; always reliable. Prices to suit the purchaser. Best Hill Climbers Built. We invite inspection. Send for Descriptive Bulletins.

Automobile Company of America

FACTORY AND OFFICES,  
MARION (JERSEY CITY), N. J.

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## ***Automobile Red Book Depots***

Official Red Book Depots will be established in every city, town and village for the sale of the

## ***Famous VISCO Oils***

Specially manufactured for automobile purposes. A trial of VISCO OILS will prove their superiority over all others. Address and telephone number of all Red Book Depots will be published each month in the Automobile Magazine. If there is no Red Book Depot in your town write us direct for prices, etc. Look in the July number of the Automobile Magazine for addresses of Red Book Depots. Applications for official depots should be made at once to

***The Red Book Oil Department***

***51 Front Street, New York***

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## MIDGLEY

## Tubular Steel Wheels

The only wheel specially designed and constructed for the combined DRIVING and CARRYING of the load; will not dish, crush or buckle. Unquestioned strength, combining endurance and elegance of finish. Let us inform you fully regarding this, the COMING WHEEL.

Write for Booklet

THE MIDGLEY MFG. CO.

COLUMBUS, OHIO, U.S.A.

K FRANKLIN PETERSON,

165 Lake St., Chicago, Western Sales Office.

## MASSACHUSETTS—Continued

BOSTON—Park Square Auto. Station No. 1.  
43 Columbus Ave. Telephone, Tremont  
616. S. R. C.

BOSTON—H. B. Shattuck & Son, 239 Co-  
lumbus Ave. S. R. C.

BROCKTON—W. H. Marble, 52 High St.  
Telephone, 353-2. S. R.

CAMBRIDGE—Harvard Auto. Co., 8-10 Pal-  
mer St. Telephone, 72-2 Camb. S. R. C.

CANTON—J. E. Kelley. S. R. C.

CLINTON—Clinton Mch. Works, 460 High  
St. Telephone, 153-5. S. R.

CONCORD—John McKuyer. Telephone, 14-5.  
S. R. C.

DORCHESTER—Barden Cycle Co., 232 Adams  
St. S. R.

FRANKLIN—Franklin Cycle Co., Central  
Sq. S. R. C.

HUDSON—F. D. Knight & Son, 49 Church  
St. R.

MARLBORO—Mariboro Auto & Car Co. Tel-  
ephone, 9154-13. S. R.

MEDFIELD—James Grevel.

MEDFORD—F. H. Greaney, 60 Park St.: 439  
High St., W. Medford. Telephone, 27-3  
Medford. S. R. C.

NEWTONVILLE—Fred J. Read, 521 Wash-  
ington St. Telephone, 326-3. S. R.

NO. ATTLEBORO—John P. Ballou, 175  
Washington St. S. R. C.

PLYMOUTH—G. E. Rounds. Telephone,  
205-3. S. R. C.

ROXBURY—Wilson Ourish, 470 Blue Hill  
Ave. Grove Hill. Telephone, Rox. 65.  
S. R. C.

SO. FRAMINGHAM—Chas. F. Whyte, 17 &  
19 Irving St. R.

SPRINGFIELD—Springfield Auto. Co., 60  
Main St. Telephone, 553-4. S. R. C.

SPRINGFIELD—Locomobile Agency, Main  
St. S. R.

STOUGHTON—James Lehan, Lehan's Bldg.  
Telephone, 38-4 and 38-7. S. R. C.

WALTHAM—Harvard Auto Corporation. S.  
R.

WESTFIELD—Loomis Automobile Co. S.  
R. C.

## MICHIGAN

GRAND RAPIDS—Louis C. Howard, 35 N.  
Division St. Telephone, 2195 City. S. R. C.

MUSKEGON—Dr. E. J. Dove. S. R. C.

MENOMINEE—D. F. Poyer, 518 Main St.  
Telephone, 128. S. R. C.

GRAND RAPIDS—Adams & Hart.

## MINNESOTA

MINNEAPOLIS—Great Western Cycle Co.,  
601 First Ave. Telephone, 1929 Main. S.  
R. C.

## MISSOURI

ST. LOUIS—R. J. Leacock Supply Co., 711  
Pine St. S. R. C.

KANSAS CITY—Day Auto. Co., 1407 So. 12th  
St. Telephone, 1742 Main. S. R.

ST. LOUIS—Halsey Auto. Co., 4259-65 Olive  
St. "Both 'Phones." S. R. C.

ST. LOUIS—Day Auto. Co., 1010 Olive St.  
Telephone, Bell, Main 1310. S. R.

## NEW JERSEY

ATLANTIC CITY—Arthur Boyce, 1735 Atlan-  
tic Ave. Telephone, 112-F and 706-F. S. R.

PRIDGETOWN—Jacob R. Eiwell. R.

BURLINGTON—Gray Mfg. Co., 1116 Main St.  
S. R.

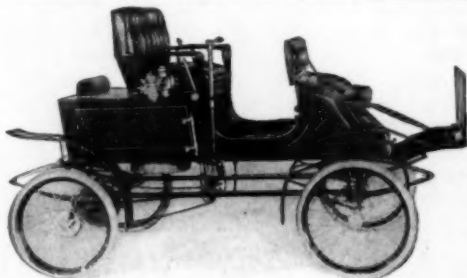
EAST ORANGE—John M. Schmidt, 22 Rail-  
road Pl. Telephone, 1504 E. O. S. R. C.

EGG HARBOR—Jacob Wimberg. Telephone,  
Bell. S. R. C.

HACKENSACK—Davison Eng. Co., Main and  
Bridge Sts. Telephone, 175-L. S. R. C.

HACKENSACK—Wood & Bedly, 311 and 313  
Main St. S. R. C.

HACKETTSTOWN—M. S. Neighbor, Hope  
St. (King Bldg.). S. R. C.

Prescott  
Touring Car

Two Double Acting Brakes on Rear  
Hubs; Heavy New Design Running  
Gear; American Roller Bearings;  
Large Fuel and Water Capacity; New  
Indestructible Burner; Pilot Light  
Never Blows Out; Superheated  
Steam Doubles the Mileage of Water;  
Economy of Fuel; Encased Engine;  
Automatic Lubricator.

SEND FOR CATALOGUE

Prescott Auto Co.  
83 Chambers St., New York

Wheel Base 68 inches.

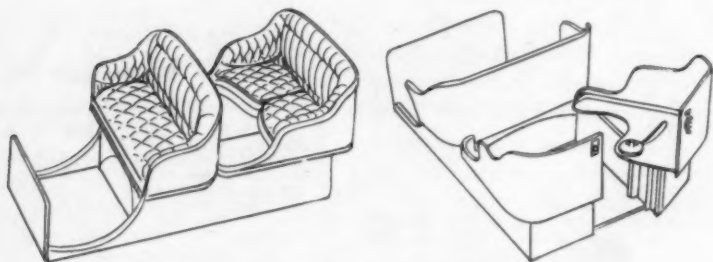
Weight 1000 lbs.

Carry 2 or 4 Passengers.

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## Best Kind of Proof

**I**T is an extremely easy thing to claim superiority for your goods, it is quite another thing, however, to prove it. The G. & J. tire people are extremely lucky in being able to prove that the claims for the superior running qualities of the G. & J. tire are facts not mere claims. The way this proof was given was as simple as it was convincing. Two electric vehicles of same make and of identical construction, one equipped with G. & J. detachable tires, the other with high grade tires of another make, were tested in a mile run (ten city blocks), both vehicles were set to run at the same rate of speed. Result—the machine fitted with G. & J. tires distanced its competitor four blocks. In order to be sure that the test was a fair one, the wheels on the two vehicles were transposed—the wheels fitted with G. & J. tires being placed on the vehicle that was dis-



Merely a Suggestion on Body Construction

tanced in the first test, and vice versa. The vehicles were again set to run at an equal rate of speed, and at the finish of the mile the G. & J. tires on the former losing vehicle had left the former winning one just four blocks behind.

---

## Produced by Pioneers

**T**HE founders of the Buffalo Automobile & Auto-Bi. Company were among the very first to recognize the coming demand for a light weight, moderate priced motor vehicles. Not content with this recognition, the company headed by E. R. Thomas, were the pioneers in providing such vehicles, and have therefore a longer experience in their particular line than any other American makers. The natural result is that under the skilful guidance of E. B. Olmsted, general manager, the Buffalo productions are models of their kind, in both design and construction, and well worthy of the prompt recognition and endorsement the public has accorded them.





Touring Car—Price \$2,000

## THE WINTON MOTOR CARRIAGE CO., Cleveland, U.S.A.

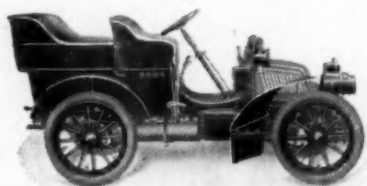
BRANCHES AND AGENCY DEPOTS THROUGHOUT THE COUNTRY.

### NEW JERSEY—Continued

JERSEY CITY—D. W. Romaine, 70 Erie St. Telephone, 1559 F. S. R. C.  
 MORRISTOWN—Willis H. Dretton, 24 Washington St. Telephone, 173. S. R. C.  
 NEWARK—New Jersey Automobile Co., 8 Central Ave. Telephone, 734 Newark. S. R. C.  
 NEWARK—The Automobile Company, 79 Orange St. Telephone, 799. S. R. C.  
 NEWARK—J. W. Geissler, 46 William St. S. R. C.  
 NEWARK—L. Lawrence, 241 Halsey St. S. R. C.  
 NEWARK—Lewis J. Worth, 26-28 William St. S. R. C.  
 NEW EGYPT—Chafey & Brown. S. R. C.  
 PASSAIC—Geo. De W. Brown, 271 Main Ave. Telephone, 206 B. Passaic. S. R.  
 RIDGEWOOD—S. B. Hagerman, Bergen Co. S. R. C.  
 SEABRIGHT—H. L. Zobel, Jr. Telephone, 26-B. S. R. C.  
 SOUTH ORANGE—W. L. Mead, 275 Ridgewood Road. G.—Repair.  
 VINELAND—C. W. Pearson, N. 6th St. Telephone, 35 Interstate. S. R.

### NEW YORK

NEW YORK CITY—Automobile Exchange & Storage Co., 133-139 West 38th St. Telephone, 5504 38th St. S. R. C.  
 NEW YORK CITY—Automobile Storage and Repair Co., 57 West 66th St. Telephone, 1271 Columbus. S. R. C.  
 NEW YORK—Sidney B. Bowman, 945 Eighth avenue, cor. Fifty-sixth street. Telephone, 400 38th street. S. R. C.  
 NEW YORK CITY—Homan & Schulz, 2642 Broadway, near 160th St. Telephone, 1465 Riverside. S. R. C.



Style "F" Type "4." 16 H.P., 1500 lbs., with detachable tonneau.

**THE PEERLESS MANUFACTURING CO., Cleveland, Ohio.**  
 Banker Bros. Co., Agents for New York City—Location to be announced. Banker Bros. Co., Agents for Pennsylvania—Pittsburg, Baum and Beatty Sts., East End. Philadelphia: Broad and Vine Sts. Detroit Agent: J. P. Schneider, 187-189 Jefferson Ave., near Woodward, Detroit, Mich.

In answering advertisements please mention THE AUTOMOBILE MAGAZINE.

## WINTON TOURING CAR

**I**N the Long Island endurance contest two Winton cars entered and both won blueribbons. The Touring Car captured first honors and the silver cup in the hill climbing contest. The Winton Touring Car is an automobile for all around satisfactory service. Get our catalog.

NEW YORK CITY—Harlem Automobile Co., 159-163 West 127th St. Telephone, 1439 Harlem. S. R. C.  
 NEW YORK CITY—Manhattan Automobile Co., 62 West 43d St. Telephone, 4138 38th St. S. R. C.  
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 NEW YORK CITY—"The Central," 1684 Broadway, between 52d and 53d Sts. Telephone, 556 Columbus. S. R. C.  
 NEW YORK CITY—John Wanamaker, 140 E. 57th St. Telephone, 1161 38th St. S. R. C.  
 NEW YORK—Westchester Auto. Co., 523 Fifth avenue. Telephone, 6029 38th street. S. R.  
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Built in America. 32 and 16 H.P. Motor. Weight 1350 to 1500 lbs. Three styles of bodies. Three speeds and reverse. Odorless exhaust. Long wheel base. Low center of gravity. Flexible power transmission.

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**T**HAT "Munger Tires" can be used in a deflated condition without injurious results was conclusively demonstrated in a recent run from New York to Philadelphia and return. With a vehicle weighing 2,700 pounds and equipped with 32-inch by 3-inch Munger tires on front wheels and 36-inch by 4-inch on rear wheels, the tires were deflated before the start and had no attention whatever during the entire trip. At the conclusion they were inflated to a pressure of 150 pounds to the square inch, showing no leakage, nor was there any noticeable wear on any part of any one of the four tires. What makes the test all the more conclusive is that this particular set of tires has been in constant use since last May, covering in that time nearly 7,000 miles, with every indication of outlasting the vehicle on which they are being tested.

That automobilists who have suffered the annoyance and expense incident upon the hard service of driving, stopping and starting motor vehicles, appreciate the many excellent features embodied in Munger Tires, is evidenced by the great number of vehicles now being fitted with them by owners who have been through the mill and been ground in a manner expensive, but not pleasant.

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## Little, But a Winner

Some people, who are inclined to think without making any effort to see how near they come to thinking correctly, have become possessed of the very erroneous idea that because the Oldsmobile was not a big, heavy vehicle it was not a stayer. One of the results of the recent Long Island Endurance test was some very convincing evidence as to the fallacy of this idea, since an Oldsmobile under the clever guidance of R. M. Owen not only did the fastest hill climb in its class, but finished its hundred miles in 6 hours and 58 minutes, thereby earning the much coveted blue ribbon. In making this remarkable run of 100 miles the little Western wonder consumed three gallons of gasoline, evaporated two quarts of water and used only one-half of an oil cup of lubricating oil. Although this run was to test primarily the running power of motor vehicles, it also demonstrated the practicability, endurance and economy of this little Detroit runabout in a way which leaves no room for doubt that it is as good as it is popular—and that is the limit.

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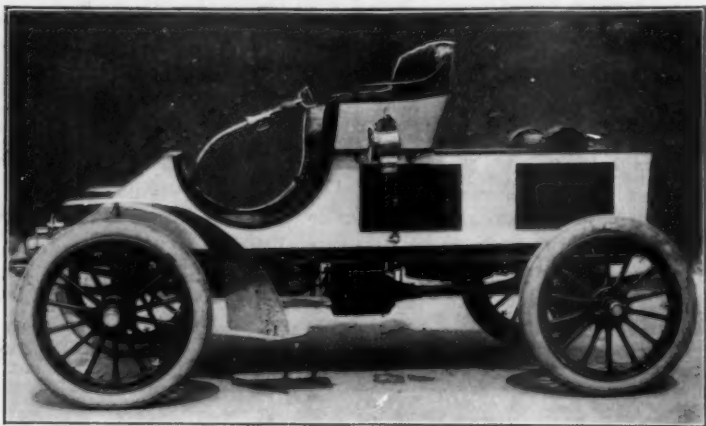
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**Q**UICK to perceive the trend of popular fancy for the foreign type of vehicle the Century Motor Vehicle Co. of Syracuse, have put aside the old runabout type of touring vehicle and substituted therefor the one here shown. When this vehicle started in the Long Island Endurance contest it had not been run a hundred miles all told, but so convinced was its designer, Manager William Van Wagoner, that it would give a satisfactory account of itself that he started as confidently with the untried vehicle as he would with one whose construction had been given more ex-



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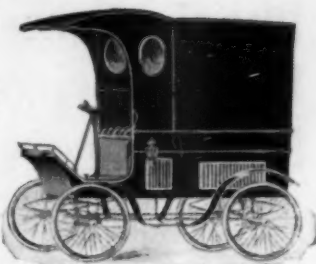
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## THE DARLING GASOLINE AUTOMOBILE



## OUR PRICES

Style No. 1—Stan-hope, . . . . .	\$ 950 00
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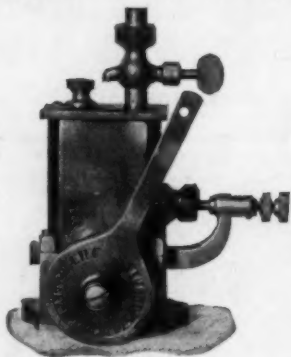
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EASY TO ATTACH.



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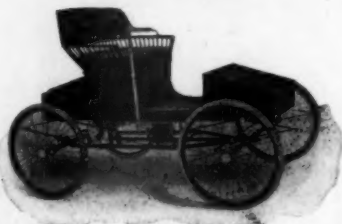
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NEAT, COMFORTABLE, EF-  
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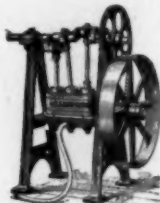
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**SPEEDY**

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RUNABOUT. 6 H.P. 32 In. Wheels. 1,250 lbs. \$1,200.

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Kokomo, Indiana

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SELL  
YOUR  
VEHICLE**

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An advertisement in our

**AUTOMOBILE EXCHANGE**

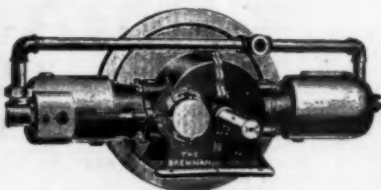
will bring it to the attention of more interested people than you can do in any other way. Better let us hear from you at once, with full description.

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THE BRENNAN  
AUTOMOBILE  
MOTOR NEVER  
DISAPPOINTS  
AND SOME, YEA  
MANY, KNOW  
THAT FACT



ANY H. P. FROM  
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WE GUARANTEE  
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TO BE SAFE,  
STRONG, SPEEDY  
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Testimonials from College Engineering Professors and patrons furnished  
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MAKERS OF GOOD MOTORS

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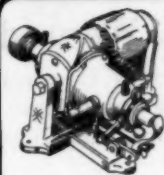
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Do away entirely with ALL starting and running batteries and their constant trouble and expense by using instead an

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**TO CUT A LONG TAIL SHORT**

We will not go into details to give you the names, address, etc., of the different parties who have purchased machines from us, but you can get them if you write us for same. You will find that they are all pleased.

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<p><b>No. 02 Loco</b>, brand-new, built to order, 16 inch boiler and burner, heavy running gear, heavy spokes, duplex gauge, run one time in a race which it won, cost \$1,100. This machine latest model. Price, <b>\$895.00</b></p> <p><b>No. 03 Loco</b>, by and new, late model, cost \$950. Price, <b>\$850.00</b></p> <p><b>No. 2 Loco</b>, fine condition, good running order as a new machine. A bargain at <b>\$495.00</b></p> <p><b>Loco Surrey</b>, brand-new. Price, <b>\$885.00</b></p> <p><b>Oldsmobile</b>, in fine condition. Price, <b>\$550.00</b></p> <p><b>No. 03 Loco</b>, panel seat, Victoria top, fine condition as a new machine. A bargain at <b>\$925.00</b></p> <p><b>No. 2 Late Model Locomobile</b>, almost new, run about 300 miles. Price, <b>\$600.00</b></p> <p><b>Foster Steam Machine</b>, 1901 model, almost new, <b>\$395.00</b></p>	<p><b>A. L. DYKE,</b> - - - - - <b>St. Louis, Mo.</b></p>
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Best book we know of on the subject. Plain and practical. Gives directions for building the whole vehicle from motor to running gear. You want one. \$2.00.

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**More FRANTZ Bodies  
Used than all others**

The recognized Automobile Body Maker to the Automobile Manufacturers. Highest grade material and expert workmanship. **Get our prices.**

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Will carry 6; practically new. Powerful engine. 40 gallons water, 12 gallons gasoline. All improvements. \$1,600. Address  
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A second-hand Dos-a-Dos, steam or gasoline. State particulars.  
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Complete and in good running order. \$80.  
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A Reading steam carriage in first class condition, with all improvements, and with dos-a-dos seat. Will sell for \$500.  
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# The Automobile Magazine

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VOL. IV No. 7

JULY 1902

PRICE 25 CENTS

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PLUGS, - 1.50

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*The ONLY Automobile that has  
Won EVERY Endurance Con-  
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# HAYNES-APPERSON

The most practical Automobile in the World

WE WON THE 100-MILE NON-STOP TEST ON MAY 30 AS USUAL



Runabout, \$1200 Phaeton, \$1500 Surrey, \$1800

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**WE** offer a proved efficiency and reliability, ease of access to working parts, and simplicity of operation not afforded by any other make in the world, at a moderate cost for the Finest Workmanship.

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THE CAREFUL and thorough test given every

**OTTO**

engine would not alone have placed it in the high position it holds had not correct design, best materials and skilled workmanship preceded the test.

The buyer's interests are safeguarded during every step of the engine's progress through the shops by the watchful care of men who have made gas enginery their life study. For twenty-six years our entire energy has been devoted to the perfecting of the OTTO, and our entire plant (covering a city block) has been used solely for its manufacture.

Verily the OTTO deserves the proud position it holds.

## THE OTTO GAS ENGINE WORKS

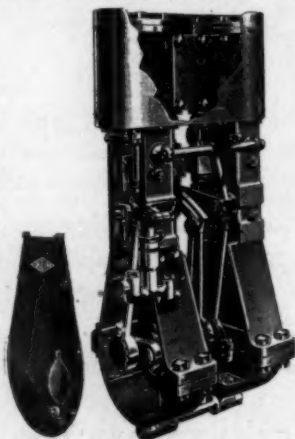
PHILADELPHIA, PA.

New York Representative—R. C. READING, 120 Liberty Street

## JOHN R. KEIM

*Steam Engine for Auto-  
mobiles and Launches*

Acknowledged to be the best **STEAM ENGINE** on the market and has been universally adopted by the leading Automobile manufacturers.



If you desire to make your steam wagon a success you cannot afford to be without my engine.

Write for full particulars and prices

**JOHN R. KEIM, BUFFALO, N. Y.**

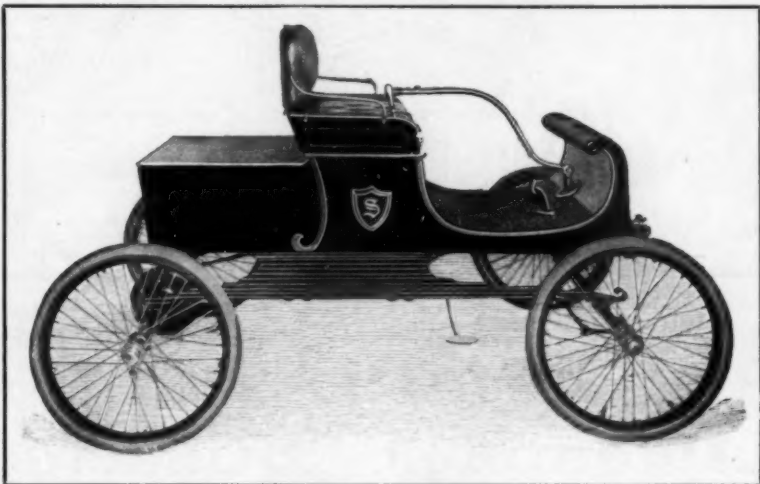
MENTION THIS PAPER

In answering advertisements please mention THE AUTOMOBILE MAGAZINE.

# The Average Man

## \$650

wants a vehicle that will carry him anywhere he wants to go and not require a skilled mechanic to keep it in order.



## The SPAULDING Gasoline Runabout

meets his every requirement. Starts from the seat. Runs 200 miles on one charge of gasoline and is **SIMPLE — DURABLE — ECONOMICAL.**

### Spaulding Automobile & Motor Co.

63 Chandler St., BUFFALO, N. Y.

### NEW JERSEY AUTOMOBILE CO., Newark, N. J.

Agents for New Jersey and New York City.

**Reliable Agents Wanted.**



*Tried,  
Tested  
and Proven.*

ADDRESS ALL CORRESPONDENCE  
TO

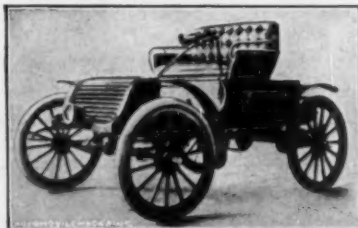
## Friedman Automobile Co.

No. 3 EAST VAN BUREN STREET,  
CHICAGO, ILL.

Price, \$750.00.

Hydro-Carbon.

Capacity, 125  
Miles.



6 H. P., Actual,  
Starts from  
Seat. No Gear.

Simplest  
Machine Ever  
Constructed.

*17,000  
Miles of Actual  
Road Experience.*

MANUFACTURED AT BELVIDERE, ILLS., BY THE

## NATIONAL SEWING MACHINE CO.

CAPACITY, 10 MACHINES PER DAY.

IMMEDIATE DELIVERY.

*We have done our  
own experi-  
menting*

*AGENTS  
WANTED*

## ATTENTION! Automobile Builders

CAN I INTEREST IN MY COMPLETE  
LINE AUTOMOBILE FORGING? . .



— WRITE FOR PARTICULARS —

**JOHN R. KEIM, BUFFALO, N. Y.**

MENTION THIS PAPER

In answering advertisements please mention THE AUTOMOBILE MAGAZINE

# American Darracq Automobile Co.

Office and Warerooms: 652 Hudson St., New York City

Near 14th St. Station, 9th Ave. E.I.R.R.

F. A. LA ROCHE, Sales Manager



Governed Motor Three Speeds and Reverse. Weight 1300 and 1600 lbs. Direct Drive. Ample Power. Accessibility. Reliability. Single and Double Cylinder. 9 and 16 h.-p. Touring Cars Weekly importations provide instant delivery and assure the latest modern devices, improvements and styles. Our record the best proof of merit. 47 Firsts out of 52 Races in 1901. Winner of Annual French Hill Climbing Trials at Gallion Hill, November, 1901.

## JACKSON & SCHMELZEL

SPECIALISTS IN

## Automobile Photography

FLUSHING, N. Y.

## Tonkin Automobile Boilers and Kerosene Burners

Specialties

**Tonkin Dry Plate Boilers  
Tonkin Water Tube Boilers  
Heavy Truck Boilers  
Perfect Kerosene Burners**

.....Write for Catalogue and Prices.....

**TONKIN BOILER COMPANY**

OSWEGO, . . . . . NEW YORK.



In answering advertisements please mention THE AUTOMOBILE MAGAZINE.



The tires on an automobile either increase or retard its speed. Resilient tires give additional power and greater mileage.

## G & J TIRES

have been proven the speediest of all vehicle tires, and they wear longest. Descriptive catalog and full information on request.

G & J TIRE CO., INDIANAPOLIS.

## Wood Wheels

Your customer wants them!

Why not give them the best?

They are made by

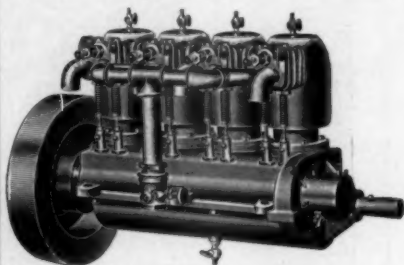
**Phineas Jones  
& Company**

301 to 313 Market Street  
NEWARK, N. J.

## "THE RUTENBER"

### Upright Gasoline Motors

Both Air and Water cooled, for Automobiles, Launches and Stationary use, from 1 to 150 Horse Power.



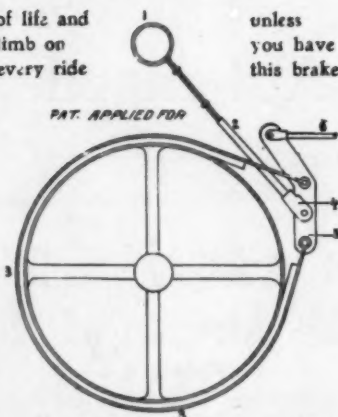
Also Automobiles of every style—Delivery Wagons, Omnibuses and Heavy Trucks.

THE RUTENBER MFG. COMPANY, Inc.  
184 La Salle Street, Chicago  
ROOM 1104 THE TEMPLE

## You are in DANGER

of life and  
limb on  
every ride

unless  
you have  
this brake!



THIS BRAKE holds in either direction—does not bind and WILL HOLD YOU ANYWHERE. Better send a postal and find out more about it.

**N. J. Automobile Co.,**  
8 Central Ave., Newark, N. J.  
Agents Wanted.

# THIS IS THE "RIG THAT RUNS"



**Everybody Knows It Now**

**They watched B 34 in the  
Endurance Run**

**NEVER MISSED A CONTROL  
NO MECHANICS  
NO HELPERS  
NOTHING SPECIAL**

*Went in right cut of stock and went  
through on its merits, with a load of  
three passengers instead of two as in-  
tended.*

*One of the best carriages at any  
price and undoubtedly the best value  
on the market.*

**Catalogs Free**

## St. Louis Motor Carriage Co.

1120 Vandeventer Avenue, St. Louis, Mo.

**When ordering your  
new machine spec-  
ify Clark Tires.**

**Easily Repaired.  
Cannot Rim Cut.  
Write for Catalogue.**

**CLARK TIRES**

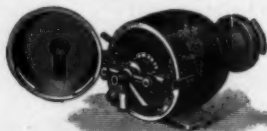
**A DETACHABLE  
TIRE THAT FITS ANY  
CRESCENT RIM**

**CLARK TIRE CO.  
CHICAGO.  
LAKESIDE BLDG.**

In answering advertisements please mention THE AUTOMOBILE MAGAZINE.

## ECONOMICAL IGNITION

**I**T is very foolish to spend much money on ignition when the most reliable can be obtained for little money. We have interesting printed matter on this subject and will be glad to send you full details of the Apple Economical Igniting outfits for either touch or jump spark. We manufacture everything in the ignition line for automobile, marine or stationary engines.



### *The Dayton Electrical Mfg. Co.*

250 ST. CLAIR STREET, DAYTON, OHIO

New York stock carried by Charles E. Miller  
97 Reade Street, New York

Philadelphia Office  
The Bourse Bldg.

Chicago Office  
19-21 La Salle Street

St. Louis stock carried by A. L. Dyke,  
Linmar Bldg.

## CANVASSER WANTED TO SELL PRINTERS' INK

**A JOURNAL FOR ADVERTISERS**—published weekly at five dollars a year. It teaches the science and practice of Advertising, and is highly esteemed by the most successful advertisers in this country and Great Britain. Liberal commission allowed.

ADDRESS

**PRINTERS' INK,**  
10 Spruce St., N. Y.

## The Conrad Steam Carriage



MODEL 60

**Built for service  
Best for country driving  
Elegant in design and finish  
Large fuel and water capacity**

Send for catalog

Desirable agents wanted

### **The Conrad Motor Carriage Co.**

1417 Niagara St.,

Buffalo, N. Y.

## THE CONSTRUCTION OF A GASOLINE MOTOR VEHICLE. ❀ ❀ ❀

By C. C. BRAMWELL.

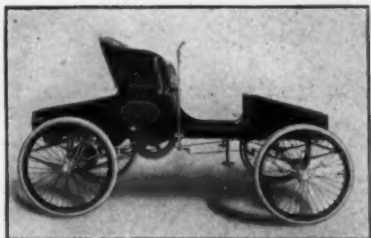
Best book we know of on the subject. Plain and practical. Gives directions for building the whole vehicle from motor to running gear. You want one. \$2.00.

**AUTOMOBILE MAGAZINE**  
174 Broadway  
New York.



# A Modern Automobile!

## "BUFFALO, SR." Automobile



Model 7. Price, \$800.

### AGENTS

We have the largest, the oldest, the most tried line, and the margin is liberal. **Guarantee Unquestioned** Write for proposition for exclusive agency. "DO IT NOW."

CATALOGS READY.

Adapted for use of Professional Men, Business Men and Families. Equipped with **6 B. H. P. Medium Speed Gasoline Motor**; low speed 6 miles, high speed 25 miles. Strong and reliable transmission, roomy body, wide seat, long wheel base; capacity, 200 miles 1 filling.

Vehicle Right.

Price Right.

ALSO THE

## "AUTO-BI" Motor Bicycle



Model 4. Price, \$175. 2½ H. P. Motor.

**Buffalo Automobile and Auto-Bi Co.**

1200 NIAGARA STREET, BUFFALO, N. Y.

# If You Have Any Questions

About any make of vehicle or accessories we shall be pleased to answer them to the best of our ability.

What we don't know we can find out for you—perhaps better than you can for yourself.

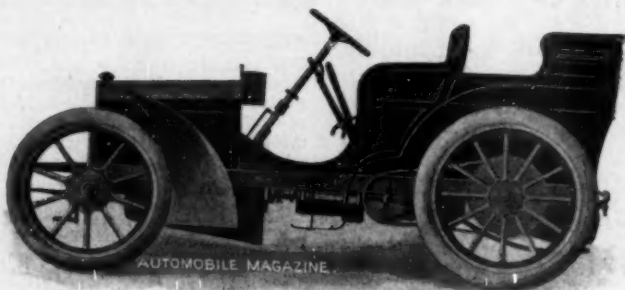
If you are having troubles of any kind we can probably help you. Don't be bashful—send in your queries.

Information  
Bureau ✕

**Automobile Magazine**

174 Broadway, Entrance No. 1 Maiden Lane  
New York

In answering advertisements please mention THE AUTOMOBILE MAGAZINE



*The*  
**Road You Take**

---

MAY MAKE OR MAR YOUR TRIP

You can save all trouble on this score by sending an inquiry — with stamp — to the

**Touring Department**  
**OF THE AUTOMOBILE MAGAZINE**

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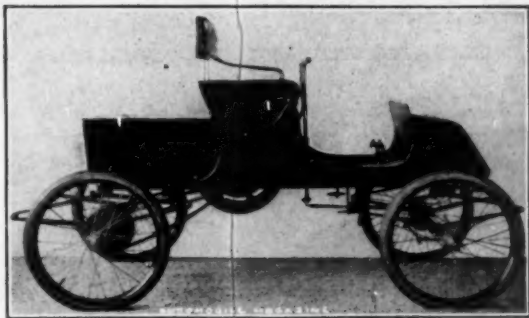
*No. 1 Maiden Lane, New York*

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Routes which have appeared and can be had by addressing this office are:

**NEW YORK-ALBANY**  
**NEW YORK-NEW HAVEN**

THOMAS B. JEFFERY & CO. manufacture the  
**Rambler Automobile**



The most practical light touring car made. Fuel supply for 150 miles; safety starting device. Two speeds forward, one reverse. Operated easily by any lady. Safe for any road in any weather. Booklet C-X gives full particulars. Sent on request.

General Offices and Factory, - KENOSHA, WISCONSIN

**Columbia**  
 ELECTRIC  
**Automobiles**



Columbia Cabriolet, Mark XIX

Contain less than one-tenth the number of moving parts found in vehicles of other types, and are proportionally easier and more economical to maintain in perfect running order. They have the further advantages of complete interchangeability of mechanical and electrical parts and the finest body work and furnishings produced in this country. Each of our batteries is tested for **40 miles** on one charge before delivery. One-charge runs of over 60 miles have frequently been made by our vehicles.

**Runabouts  
 Surreys  
 Buses**

**Victorias  
 Cabriolets  
 Delivery Wagons**

**Broughams  
 Wagonettes**

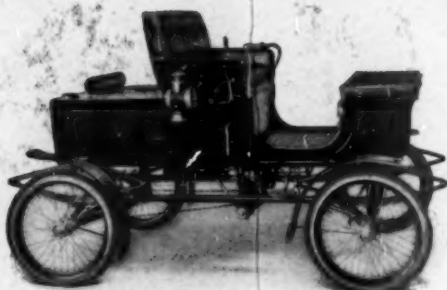
*Write for our latest catalogue*

**ELECTRIC VEHICLE CO., HARTFORD, CONN.**

100 Broadway, New York

1421 Michigan Ave., Chicago

# Locomobile



Locomobile Touring Car—Model A

This car is specially designed for long distance running over all kinds of roads. Some of the special features of this car are as follows:

73 inch Wheel base.  
 Extra large gasoline and water tank capacities.  
 Three Water Pumps.  
 Automatic pressure on the burner,  
 Large, powerful engine.  
 Strong Roller Chain.  
 Two Double Acting Brakes.  
 Automatic lubrication of crossheads.  
 Improved method of Cylinder lubrication.  
 Improved and simplified piping, giving great accessibility  
 to working parts.  
 New and convenient method of carrying tools.  
 Unusually complete equipment.

---

Write for new catalogue giving full description of new models

## The Locomobile Company of America

7 EAST 42d STREET, NEW YORK

NEW YORK SALESROOM  
 Broadway & 76th Street.

BRANCHES  
 Boston, Philadelphia, Chicago, London

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In answering advertisements please mention THE AUTOMOBILE MAGAZINE.

# Tropenas Department

## Steel Castings, 25 pounds and under.

Estimates given on not less than 100 from each pattern.

# The Sargent Company

## WIRE WHEELS. STEEL RIMS.

Any Section.  
Any Diameter.  
For Vehicles  
from 300 to  
2500 pounds.

Any Section.  
Any Diameter.  
For Wood or  
Wire Wheels.

Steering Knuckles  
To Fit.

WE ARE THE OLDEST AND  
LARGEST COMPANY IN  
THIS LINE.

We want your business. : : : :  
We make one hundred to your one.  
For this reason we can save you  
money and give you better goods.

Send us your Specifications.

## Weston-Mott Co., Utica, N. Y.





TIRE TROUBLES VANISH  
WHEN YOU USE ♣ ♣ ♣

## “WHALEBONE” TIRES.

### WHY? BECAUSE

- |  |  |
|--|--|
| 1st. They are puncture proof.  | 6th. They are more graceful in design and outline than any other tire, and give an unequalled finish to the wheel. |
| 2nd. They last twice as long as any other tire made.   | 7th. They maintain, under all loads, the same tread surface.   |
| 3rd. They are capable of carrying double the air pressure of any other tire without increasing their diameter. | 8th. The valves remain tight, as the column of air in the tire is less disturbed.                                  |
| 4th. They throw less mud and very much less dust.  | 9th. The resiliency is better distributed, and they ride easier.   |
| 5th. Being reinforced on the upper side they are never cut by the rim.   |  |

## American Rubber Works Co.,

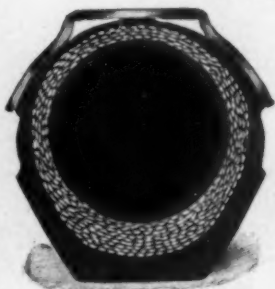
Successors to NEW BRUNSWICK RUBBER CO.

Manufacturers of High-Grade AUTO and CARRIAGE TIRES of all descriptions.

NEW YORK REPRESENTATIVE  
Room 1303—

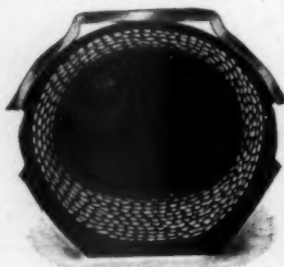
277 BROADWAY, NEW YORK.

Factory—NEW BRUNSWICK, N. J.



INFLATED

Send for  
Circular  
giving  
details of our  
Patent  
Stay Thread  
Fabric, also  
Testimonials,  
etc.



DEFLATED

In answering advertisements please mention THE AUTOMOBILE MAGAZINE.

Established 1818



# Brooks Brothers

BROADWAY (Cor. 22d St.) NEW YORK CITY

Gentlemen's Automobile Rain and Dust Coats, Chauffeurs' Liveries and Furnishings, Gold and Silver Plated French Horns, Imported Mica Facelieres, Goggles, Masks and all other sundries.

Thirty page catalogue, fully illustrated, mailed on request.

## STORAGE, REPAIR AND CHARGING STATIONS

As some stations have no facilities for repairing or charging electric vehicles, they will be designated as follows:

**S. R. C.**—Store, repair and charge all makes.

**S. R.**—Store and repair all makes.

**S.**—Store all makes.

When only special kinds are handled it will be so stated.

### CALIFORNIA

LOS ANGELES—Burke Bros., 485 So. Spring street. Tel. "Green 1682." S. R.  
 SAN FRANCISCO—C. A. Hawkins, 30 Post Bldg. Tel. Block 1106. S. R. C.  
 SAN FRANCISCO—Durham, Carrigan & Hayden, 17 Bearle St.  
 SAN JOSE—Christman Motor Cge. Co.

### COLORADO

DENVER—Pelker Cycle Co., 1583-39 Tremont St. Telephone, Main 2163. S. R.  
 DENVER—Geo. W. Hannan Auto. Agency. S. R. C.

### CONNECTICUT

GUILFORD—E. N. Butler, S. Public Sq. Telephone, 9-3. S.  
 HARTFORD—Hartford Automobile Station, 43 Wells St. Telephone, 165. S. R. C.  
 HARTFORD—Post & Lester Co. S. R. C.

### DELAWARE

NEWARK—H. B. Wright Co. Telephone, 22 Delmonia. S. R. C.  
 SMYRNA—Alfred Tighman, cor. Commer and Del. Sts. S. R.

### GEORGIA

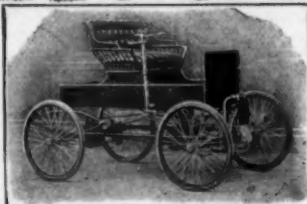
SAVANNAH—R. V. Conuroat, 246-48 Bull St. Telephone, 650 Bell & Ga. S. R.

### ILLINOIS

CHICAGO—A. C. Banker Auto. Co., 25th St. and Grand Blvd., and 17 Plymouth St. Telephone, So. 914. S. R. C.  
 CHICAGO—Frank S. Betz & Co. Telephone, 340 Lake View.  
 CHICAGO—Jewett El. Inst. Co., 358 Dearborn St.  
 CHICAGO—Ralph Temple, 293-95 Wabash Ave. Telephone, Harrison 2933. S. R. C.  
 CHICAGO—Hagmann & Hammerly, 931 Van Buren St. Telephone, West 252. S. R.  
 CHICAGO—Electric Vehicle Co., 267 Wabash Ave. S. R. C.  
 CHICAGO—Githins Bros., 1312-14 Michigan Ave. Telephone, So. 1653. S. R. C.  
 CHICAGO—Pardee & Co., 1404-6 Michigan Blvd. Tel. Calumet 2523. S. R. C.  
 BELLEVILLE—Dobschutz & Procasky, 411 E. Main St. Telephone, 384.  
 PEORIA—The Bartholomew Co. 111-121 Fedonia street. S. R.

## CRESTMOBILE

MOTORS  
SPARKING PLUGS  
AND  
COILS



SIMPLE  
DURABLE  
POWERFUL  
COMFORTABLE  
PRICE \$550. & 600.

CREST MFG. CO. CAMBRIDGEPORT MASS.

# Automobile Red Book Depots

HAVE BEEN ESTABLISHED IN THE FOLLOWING  
PLACES FOR THE SALE OF THE

## Famous VISCO Oils

### New York.

NEW YORK—Adams, McMurtry Co., 317 West 59th St. Telephone, 623 Columbus.  
NEW YORK—S. B. Bowman Automobile Co., 52 West 43d St. Telephone, 400 38th St.  
NEW YORK—Banker Bros. Co., 50 West 43d St. Telephone, 4138 38th St.  
NEW YORK—Central Automobile Storage & Repair Co., 1684 Broadway. Telephone, 596 Columbus.  
NEW YORK—Harlem Automobile Co., 159 West 127th St. Telephone, 1549 Harlem.  
NEW YORK—International Motor Car Co., 91 Fifth Ave. Telephone, 1407 18th St.  
NEW YORK—Manhattan Automobile Co., 56 West 43d St.  
NEW YORK—Mobile Co. of America., 62 West 43d St. Telephone, 6592 38th St.  
NEW YORK—Geo. Mortensen, 150 West 38th St.  
NEW YORK—New York Automobile Repository, 143 West 51st St. Telephone, 1601 Columbus.  
NEW YORK—Oldsmobile Co., 40 West 60th St. Telephone, 2580 Columbus.  
NEW YORK—Pa-Delford & Bell, 250 West 30th St. Telephone, 2562 Riverside.  
NEW YORK—Ranney, A. Elliott, 306 West 59th St. Telephone.  
NEW YORK—Spalding Bldwell Co., 38 West 43d St. Telephone, 691 38th St.  
NEW YORK—Chas. Strathman, 175 East 120th St. Telephone, 1444 Harlem.  
NEW YORK—St. Nicholas Automobile Depot, 55 West 66th St. Telephone, 1271 Columbus.  
NEW YORK—Westchester Automobile Co., 12 East 27th St. Telephone, 192 Madison Sq. 523 Fifth Ave. Telephone, 6029 38th St.  
NEW YORK—W. H. Webster Automobile Co., 10 West 60th St. Telephone, 1874 Columbus.

NEW YORK—John Wanamaker, 140 East 57th St. Telephone, 1161 38th St.

### Brooklyn.

BROOKLYN—Brooklyn Automobile Co., 1239 Fulton St. Telephone, 765 Bedford.  
BROOKLYN—Champion Automobile Co., 63 Montague St. Telephone, 1868 Main.  
BROOKLYN—International Motor Car Co., 342 Flatbush Ave. Telephone, 1681 Main.  
BROOKLYN—Long Island Motor Co., 32 Hanson Place. Telephone, 3750 Main.  
BROOKLYN—Lewis Cycle Co., 338 Lewis Ave. Telephone, 1509 Bedford.  
BROOKLYN—Lauterbach, F., Flatbush and Ocean Aves. Telephone, 4261 Flatbush.  
BROOKLYN—Ladd, C. W., 1285 Bedford Ave.  
BROOKLYN—Maltby, Frank D., 10 Clinton St. Telephone, 1225 Main.  
BROOKLYN—Ray, F. S., 1231 Fulton St. Telephone, 2374 Bedford.  
BROOKLYN—Sterling Automobile & Motor Cycle Co., 1104 Fulton St. Telephone, 811 Bedford.  
BROOKLYN—Townsend, Arthur F., 1148 Bedford Ave. Telephone, 853-B Bedford.

### New Jersey.

JERSEY CITY—Crescent Cycle & Automobile Co., 548 Communipaw Ave.  
NEWARK—Koehler Sporting Goods Co., H. J., 845 Broad St. Telephone, 2864 Newark.  
HOBOKEN—Meyer, V. F., 530 Washington Ave. Telephone, 117-B Hoboken.  
PATERSON—Stockbridge, F. W., Broadway & 18th St. Telephone, 2433 Paterson.

### Rhode Island.

NEWPORT—New York Automobile Repository, "Newport Branch," Ocean House Stables.

Address and telephone numbers of all Red Book Depots will be published each month in the AUTOMOBILE MAGAZINE and the RED BOOK DIRECTORY.

Applications for official Red Book Depots should be made to

**The Red Book Oil Department**  
51 Front Street, New York

In answering advertisements please mention THE AUTOMOBILE MAGAZINE.

# Packard Automobiles



THIS IS OUR NEW MODEL F.

Are built for those to whom tried out efficiency is the first requisite. Past achievements speak for themselves.

Brought strictly up-to-date and are the acme of simplicity and reliability. We make no attempt to compete on price. If you are interested in this kind of a carriage, write us, or better

Ask the man who owns one.

## Ohio Automobile Co.,

WARREN, OHIO.

Eastern Department, Adams, McNurthy Company, 114 Fifth Avenue, New York.

### INDIANA

FORT WAYNE—Brosino & Brosino. S. R.  
FORT WAYNE—Randall Wheel Co., 202-206  
W. Berry street. Telephone, 311. S. R. C.  
INDIANAPOLIS—H. Y. Hearsey Co. "On  
the Circle." Telephone, 1610. S. R. C.  
INDIANAPOLIS—Fisher Auto. Co. Tele-  
phone, 3545. S. R. C.  
INDIANAPOLIS—H. T. Hearsey, 34-36 Mon-  
ument Pl. S. R. C.  
INDIANAPOLIS—Auto. Storage & Repair  
Co., 23 E. Ohio St.  
INDIANAPOLIS—Sullivan & Merz, 25 E.  
Ohio street. Tel. 2776. S. R. C.  
KOKOMO—Apperson Bros. Tel. 15. S. R. C.  
MUNCIE—C. S. Wachtell Son & Co. S. R. C.  
SOUTH BEND—M. A. Shuey, 110 W. Wayne  
street. S. R. C.  
TERRE HAUTE—R. Chaney & Bro. Tel.  
7522 Main. S. R.

### KENTUCKY

LOUISVILLE—Prince Wells, 632 Fourth  
Ave. S. R. C.  
LOUISVILLE—Sutcliff & Co. S. R. C.

### LONG ISLAND

AMITYVILLE—C. Dittman, Park Ave. S.  
R. C.  
BROOKLYN—Brooklyn Automobile Co., 1239  
Fulton St. Telephone, 705 Bedford  
Branch. S. R. C.  
BROOKLYN—Champion Automobile Co., 68  
Montague St. Telephone, 1868 Main.  
S. R.  
BROOKLYN—International Motor Car Co.,  
342-344 Flatbush Ave. Telephone, 1681  
Main. S. R. C.  
BROOKLYN—F. Lauterbach, Flatbush and  
Ocean Aves. Telephone, 4261 Flatbush.  
S. R. C.

BROOKLYN—Patterson & Shaw, 53 Scher-  
merhorn St. Telephone, 3710 Main. S.  
R. C.  
BROOKLYN—Alex Schwalbach, 473 Flatbush  
Ave. S. R.  
BROOKLYN—Brooklyn Auto. Co., 1239-48  
Fulton St. S. R. C.  
BROOKLYN—Lewis Cycle Co., 338-40 Lewis  
Ave. Telephone, 1509 Bedford. S. R. C.  
BROOKLYN—L. I. Motor Co., 32 Hanson Pl.  
Telephone, 3750 Main. S. R. C.  
FAR ROCKAWAY—D. S. Starks. Telephone,  
11-A. S. R.  
FLUSHING—Nicks Auto Depot, 81 Grove St.  
Telephone, 233-a Flushing. S. R. C.  
GARDEN CITY—August Porrier, Franklin  
St. Telephone, 42-A. Charge.  
GLEN COVE, L. I.—J. S. Patrick. S. R. C.  
HUNTINGTON—Arthur & Flessel, 53 Main  
St. S. R.  
ROCKVILLE CENTER—Chas. E. Edwards.  
S. R.  
SOUTHAMPTON, L. I.—J. S. Allen. Tel.  
43-L. S. R.

### MARYLAND

BALTIMORE—Balt. Motor Carriage Co., 327  
N. Calvert St. Telephone, 3296Y. S. R.  
BALTIMORE—O. L. Gooden, 1118 Cathedral  
St. Telephone, B. 1121. C & P. 1199-A.  
WESTMINSTER—Wm. N. Keefer, 88-92 E.  
Main St. Telephone, W. M. 36. S.

### MASSACHUSETTS

ABINGTON—Lamson Machine Co. S. R. C.  
ANDOVER—H. F. Chase, Musgrove Bldg.  
Telephone, 118-3.  
BOSTON—Automobile Headquarters, 33 Stan-  
hope St. Telephone, 842-2 Tremont. S.  
R. C. Also rents steam and gasoline  
carriages.



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Look up our Record: First Prizes and  
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Strong and simple construction.  
Three and four cylinders.  
Best Type of Ignition.  
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Easy to control; always reliable.  
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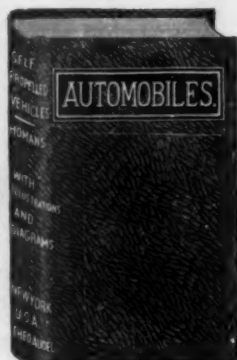
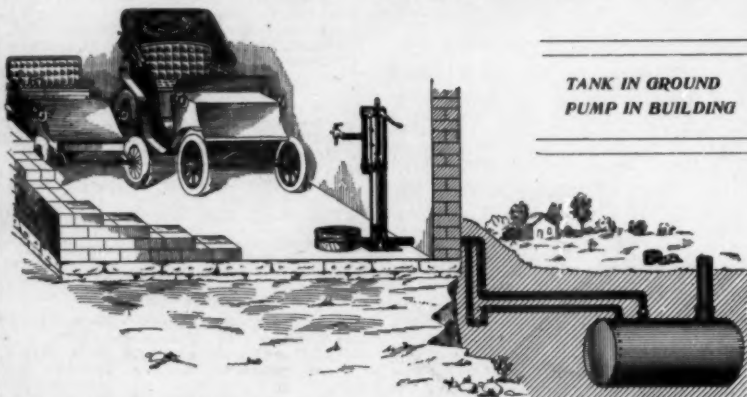
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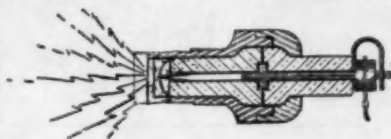


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BROCKTON—W. H. Marble, 52 High St. Telephone, 353-2. S. R.

CAMBRIDGE—Harvard Auto. Co., 8-10 Palmer St. Telephone, 72-2 Camb. S. R. C.

CANTON—J. E. Kelley. S. R. C.

CLINTON—Clinton Mch. Works, 460 High St. Telephone, 153-5. S. R.

CONCORD—John McKuyer. Telephone, 14-5. S. R. C.

DORCHESTER—Barden Cycle Co., 232 Adams St. S. R.

FRANKLIN—Franklin Cycle Co., Central Sq. S. R. C.

HUDSON—F. D. Knight & Son, 49 Church St. R.

MARLBORO—Marlboro Auto & Car Co. Telephone, 9154-13. S. R.

MEDFIELD—James Orel.

MEDFORD—F. H. Greaney, 60 Park St.; 439 High St., W. Medford. Telephone, 27-3 Medford. S. R. C.

NEWTONVILLE—Fred J. Read, 521 Washington St. Telephone, 326-3. S. R.

NO. ATTLEBORO—John F. Ballou, 175 Washington St. S. R. C.

PLYMOUTH—G. E. Rounds. Telephone, 205-3. S. R. C.

ROXBURY—Wilson Ourish, 470 Blue Hill Ave. Grove Hill. Telephone, Rox. 55. S. R. C.

SO. FRAMINGHAM—Chas. F. Whyte, 17 & 19 Irving St. R.

SPRINGFIELD—Headquarters, 36 Dwight St. Telephone, 1130. S. R. C.

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SPRINGFIELD—Springfield Auto. Co., 60 Main St. Telephone, 853-4. S. R. C.

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MUSKEGON—Dr. C. J. Dove. S. R. C.

MENOMINEE—D. F. Poyer, 518 Main St. Telephone, 126. S. R. C.

GRAND RAPIDS—Adams & Hart.

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ST. LOUIS—R. J. Leacock Supply Co., 711 Pine St. S. R. C.

KANSAS CITY—Day Auto. Co., 1407 So. 12th St. Telephone, 1742 Main. S. R.

ST. LOUIS—Halsey Auto. Co., 4259-65 Olive St. "Both 'Phones." S. R. C.

ST. LOUIS—Day Auto. Co., 1019 Olive St. Telephone, Bell, Main 1310. S. R.

## NEW JERSEY

ATLANTIC CITY—Arthur Boyce, 1735 Atlantic Ave. Telephone, 114-F and 700-F. S. R.

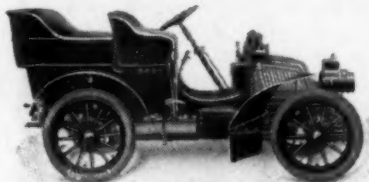
BRIDGETOWN—Jacob R. Elwell. R.

BURLINGTON—Gray Mfg. Co., 1116 Main St. S. R.

EAST ORANGE—John M. Schmidt, 22 Railroad Pl. Telephone, 1504 E. O. S. R. C.

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16 H. P., with Detachable Tonneau.

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Thoroughly Satisfactory, Comfortable, Elegant, Impressive.  
Low Center of Gravity with ample road clearance.  
Long Wheel Base with Even Distribution of Weight.  
Vertical Motors in front, Reliable and Accessible.

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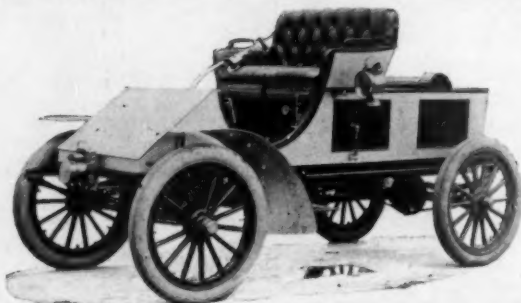
**The STURDY****IMMEDIATE DELIVERY**

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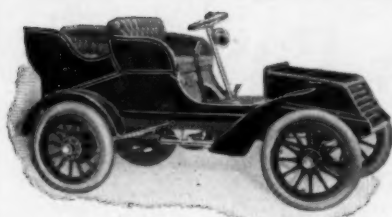
Are distinguished by the perfected DIRECT SHAFT DRIVE  
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**Century Motor Vehicle Co.**  
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Touring Car—Tonneau Detachable  
Price complete, \$2000.

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BRANCHES AND AGENCY DEPOTS IN THE PRINCIPAL CITIES.

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JERSEY CITY—D. W. Romaine, 70 Erie St. Telephone, 1559 F. S. R. C.  
MORRISTOWN—Willis H. Dretton, 24 Washington St. Telephone, 173. S. R. C.  
NEWARK—New Jersey Automobile Co., 8 Central Ave. Telephone, 734 Newark. S. R. C.  
NEWARK—The Automobile Company, 79 Orange St. Telephone, 799. S. R. C.  
NEWARK—J. W. Geissler, 46 William St. S. R. C.  
NEWARK—L. Lawrence, 241 Halsey St. S. R. C.  
NEWARK—Lewis J. Worth, 26-28 William St. S. R. C.  
NEW EGYPT—Chafey & Brown. S. R. C.  
PASSAIC—Geo. De W. Brown, 271 Main Ave. Telephone, 206 B. Passaic. S. R. C.  
RIDGEWOOD—S. B. Hagerman, Bergen Co. S. R. C.  
SEABRIGHT—H. L. Zobel, Jr. Telephone, 26-B. S. R. C.  
SOUTH ORANGE—W. L. Mead, 275 Ridgewood Road. G.—Repair.  
VINELAND—C. W. Pearson, N. 6th St. Telephone, 35 Interstate. S. R.

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NEW YORK—Sidney B. Bowman, 945 Eighth avenue, cor. Fifty-sixth street. Telephone, 400 38th street. S. R. C.  
NEW YORK CITY—Homan & Schulz, 2642

Broadway, near 100th St. Telephone, 1465 Riverside. S. R. C.  
NEW YORK CITY—Harlem Automobile Co., 159-163 West 127th St. Telephone, 1459 Harlem. S. R. C.  
NEW YORK CITY—Manhattan Automobile Co., 62 West 43d St. Telephone, 4138 33th St. S. R. C.  
NEW YORK—Manhattan Auto. Storage & Repair Co., 50-66 W. Forty-third street.  
NEW YORK—A. Elliott Ranney, 306 W. Fifty-ninth street. Telephone, 2060 Columbus. S. R. C.  
NEW YORK CITY—Spalding-Bidwell Co., 38-40 West 43d St. Telephone, 601 38th St. S. R. C.  
NEW YORK CITY—Chas. Strathmann, 175 E. 120th St. Telephone, 1444 Harlem. S. R. C.  
NEW YORK CITY—"The Central," 1684 Broadway, between 52d and 53d Sts. Telephone, 596 Columbus. S. R. C.  
NEW YORK CITY—John Wanamaker, 140 E. 57th St. Telephone, 1161 38th St. S. R. C.  
NEW YORK—Westchester Auto. Co., 523 Fifth avenue. Telephone, 6025 38th street. S. R. C.  
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BUFFALO—Buffalo Auto. Exchange, 320 Franklin St. Telephone, Lupper 870. S. R. C.  
FORT PLAIN—A. A. Miller, 12 Hancock St. Telephone, Bell Long Distance.  
NIAGARA FALLS—W. H. Davey, 231 First St. Telephone, Bell 336-X. S. R.  
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SEEN IN SUCCESSFUL USE EVERYWHERE  
THE MOST PRAISED  
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THE PACEMAKER IN AUTOMOBILE CONSTRUCTION  
THE BEST THING ON WHEELS

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THE ROAD  
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PRICE  
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It's up to the mark of the highest expectation every time. Pretty as a picture, speedy as a race horse, and travels all roads with equal smoothness and safety.

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H. B. Shattuck & Son, Boston.  
Day Automobile Co., St.  
Louis and Kansas City.  
Oldsmobile Co., Cleveland, O.  
Rochester Auto Co.,  
Rochester, N. Y.

Autovehicle Co., Newark.  
William E. Metzger, 254 Jef-  
ferson Ave., Detroit.  
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apolis.  
Ralph Temple Co., 293 Wa-  
bash Ave., Chicago.  
Olds Gasoline Engine Works,  
Omaha.  
Fisher Automobile Co.,  
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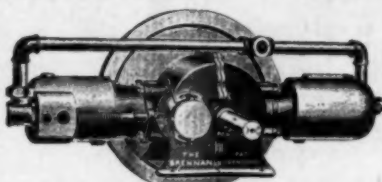
F. W. Stockbridge, Paterson.  
George Hannan, 612 Califor-  
nia St., Denver.  
The Manufacturers Co., San  
Francisco.  
Banker Bros. Co., Pittsburg.  
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AND SOME, YEA  
MANY, KNOW  
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STRONG, SPEEDY  
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ROCHESTER—Jos. J. Mandery, 150-170 South Ave. S. R. C.  
ROCHESTER—Rochester Auto. Co., 150-170 South Ave. Telephone, 3. S. R. C.  
SCHENECTADY—A. R. Burtiss & Son, 148-15 Jay St. Telephone, 202-D. S. R. C.  
SYRACUSE—Syracuse Auto. Co., 346-248 S. Warren street. Telephone, 955. S. R. C.  
Telephone, 4138 38th street. S. R. C.  
TROY—James Lucey, 359-361 Fulton St. Telephone, 399-M. S. R. C.  
UTICA—Miller-Mundy Motor Car Co., Oneida Square Telephone 834A. S. R. C.  
UTICA—Utica Auto. Co., W. H. Birdsall, Mgr. Telephone, 1U. S. R. C.  
UTICA—Miller-Mundy Motor Carriage Co., Oneida Square. S. R.  
WHITE PLAINS—E. P. Horton, 105 Railroad Ave. Telephone, 20 B. R.

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COLUMBUS—Oscar S. Lear, 201 S. High St. Telephone, 739. S. R. C.  
DAYTON—Kiser & Co., 29 E. 2d St. Telephone, 1087. S. R. C.  
SPRINGFIELD—D. Vanderpool, 12 E. High street. Telephone, 10762. S. R. C.  
YOUNGSTOWN—A. E. Bown, 134 E. Federal St. Telephone, 1034. S. R.

### OKLAHOMA

EL RENO—I. F. Hensley. S. R. C.

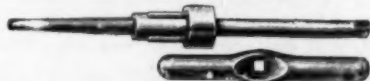
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BETHLEHEM—Lawrence L. Beckel, Novelty Machine & Bicycle Works, 211 S. Main St. S. R.  
BRISTOL—C. R. Thompson, 611-13 Bath St. Telephone, Standard. S. R.  
EASTON—George G. Snyder, 200 S. 3d St. S. R. C.  
HARRISBURG—Kline Cycle Mfg. Co., 12 N. Mkt. Square. Telephone, 642 X. S. R. C.  
PHILADELPHIA—Banker Brothers, Broad and Vine Sts. Telephone, 1-39-11. S. R.  
PHILADELPHIA—Quaker City Automobile Co., 304 North Broad St. Telephone, 1-33-83. S. R. C.  
PHILADELPHIA—Jas. M. Smith, 3503 Longshore St. Tacony. S. R. C.  
PHILADELPHIA—Hart Cycle & Auto. Co., 823 Arch St.  
PHILADELPHIA—Parkin & Le Fleur Motor Cycle Co., 2740 No. Broad St. S. R. C.  
PHILADELPHIA—H. Bartol Brazier, 1811-15 Fitzwater St. R.  
PHILADELPHIA—Jno. Wanamaker, Twenty-third and Walnut streets. Tel. 1-33-65. S. R. C.  
PITTSBURGH—Banker Brothers, Baum and Beatty Sts. S. R.  
NEW CASTLE—Kirk & Smith. Telephone, Bell 13. S. R. C.  
N. WATER GAP—L. W. Pipher. Telephone, Local. S. R.  
E. E. PITTSBURGH—Seely Mfg. Co., 139 Beatty St. Telephone, 141 East. S. R. C.  
READING—Chas. A. Miller, 33 Wood street. Tel. 128-F. S. R. C.  
READING—Duryea Power Co., River St. Telephone, 1422. S. R.  
READING—E. S. Youse, 46 N. 5th St. Telephone, 147 C. S. R.  
SCRANTON—R. W. Whipple, 520 Spruce St. S. R. C.  
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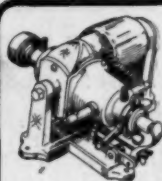
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Coils from \$5.50 to 36.00.

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EVERYTHING TO BUILD STEAM  
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IF SO, ADVERTISE  
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Automobiles.**

We would like to send you  
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You will be surprised to know  
the results that come from the  
use of properly prepared graph-  
ite in the way of increased  
speed and ease in running.  
It will cost you not over two  
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It is the only safe lubricant under all conditions.  
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It does the work; every particle is a lubricant.  
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It will bring you back in as good condition as when you started.

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## FISK TIRES

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SUITABLE FOR STEAM, GAS OR ELECTRICITY

Our running gears are all equipped with our own make of self-contained spur compensating gears. No spreading of Rear Truss. Can supply the trade with Compensating Gears or Running Gears complete. Write for prices.

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Recognizing the fact that many people cannot pay the high price asked for some Automobiles, we are inviting propositions to make Automobiles of any design to order on contract plan. Will construct machines from parts furnished if required. Send for photos of machines already built. *Machines built from \$350 up.* Our new Spark Coil of new and special design, listing at special low price, will be ready for the market shortly.

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\$600.00

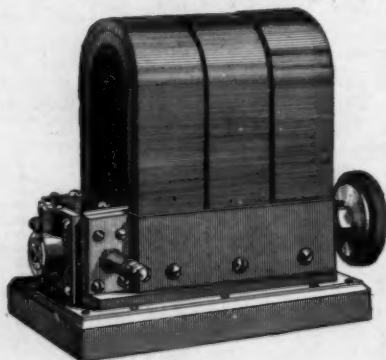


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Flexible gear prevents destruction of battery, adds to comfort of passengers.

Power equipment of unquestioned superiority designed to give satisfaction.

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## Again !! Three Searchmont

Cars Score  
100 %

In the recent Endurance Contest of the Automobile Club of America. If you want to know more about "America's Leading Automobile" write to the

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With 156 Illustrations. Cloth \$2.70,  
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BY

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Multiple Coils for multiple cylinders give the best results—no high tension spark passes through commutator or brushes.

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**AUTO ENGINES  
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Will carry 6; practically new. Powerful engine. 40 gallons water, 12 gallons gasoline. All improvements. \$1,600. Address

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A Reading steam carriage in first class condition, with all improvements, and with dos-a-dos seat. Will sell for \$500.

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its creation and its application as a motive power can best be accomplished by reading

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The only wheel specially designed and constructed for the combined DRIVING and CARRYING of the load; will not dish, crush or buckle. Unquestioned strength, combining endurance and elegance of finish. Let us inform you fully regarding this, the COMING WHEEL.

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Of all the light power imported cars, my judgment is that there is none superior in efficiency, reliability and construction to the 10 h. p. Georges Richard.

Actual tests against all competitors have demonstrated the superiority of the engine, its control, economy and hill climbing abilities.

I have made an arrangement with the builders whereby a limited number of the Georges Richard cars will be shipped each week.

For wide-awake buyers, who want a superior light power car, here is an opportunity for immediate delivery.

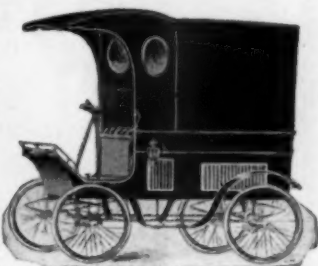
We are always ready to demonstrate to interested inquirers.

ALEXANDER FISCHER, 239 West 50th Street, New York

## THE BEARDSLEY &amp; HUBBS MFG. CO.

SHELBY, OHIO, Manufacturers of

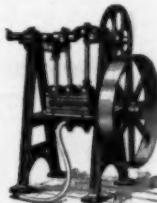
## THE DARLING GASOLINE AUTOMOBILE



## OUR PRICES

Style No. 1—Stanhope, . . . . .	\$ 950.00
" 2—Stanhope, . . . . .	1,025.00
" 3—2 and 4 Passenger, . . . . .	1,100.00
" 4—Physician's Cab, . . . . .	1,500.00
" 5—Combination Break, . . . . .	1,350.00
" 6—Delivery Wagon, . . . . .	1,500.00
" 7—Touring Car, . . . . .	1,250.00

SEE OUR COMPLETE CATALOGUE. ADDRESS "DEPT. C."



Hand and Power Pumps  
For Bicycles and Automobiles

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Embody every desirable feature known  
of in either pneumatic or solid tires



*Our Catalog tells all about them*

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### Munger Automobile Tire Co.

TRENTON : : NEW JERSEY

# The Automobile Magazine

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VOL. IV No. 8

AUGUST, 1902

PRICE 25 CENTS

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When you see the BAKER ELECTRIC, you see the best made, most efficient and finest finished Electric Automobile in the country. We manufacture Stanhopes with Victoria or open top for ladies' driving or physicians' use, and two styles of Runabouts that have no equal. Send for Catalog.

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**A Manual That Tells What a  
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ENGINES, GEARS,  
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**Desberon Motor-Car Co.**

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IF YOU ARE HAVING TROUBLE  
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## Famous **VISCO OILS**

THEY ARE SPECIALLY MANUFAC-  
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Applications for official Red Book Depots should be made to above address.





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**OTTO**



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Verily the OTTO deserves the proud position it holds.

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### INFORMATION BUREAU

OF

## The Automobile Magazine

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We do not claim to know it all, but what we don't know we can find out for you—perhaps better than you can for yourself.

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wants a vehicle that will carry him anywhere he wants to go and not require a skilled mechanic to keep it in order.



## The **SPAULDING** Gasoline Runabout

meets his every requirement. Starts from the seat. Runs 200 miles on one charge of gasoline and is **SIMPLE — DURABLE — ECONOMICAL.**

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### NEW JERSEY AUTOMOBILE CO., Newark, N. J.

Agents for New Jersey and New York City.

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Trid,  
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ADDRESS ALL CORRESPONDENCE  
TO

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Miles of Actual  
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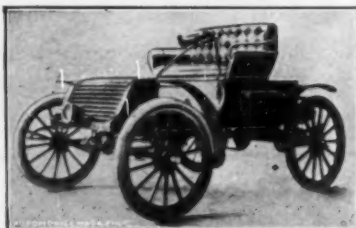
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Price, \$750.00.

Hydro-Carbon.

Capacity, 125  
Miles.



6 H. P., Actual,  
Starts from  
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Simplest  
Machine Ever  
Constructed.

MANUFACTURED AT BELVIDERE, ILLS., BY THE

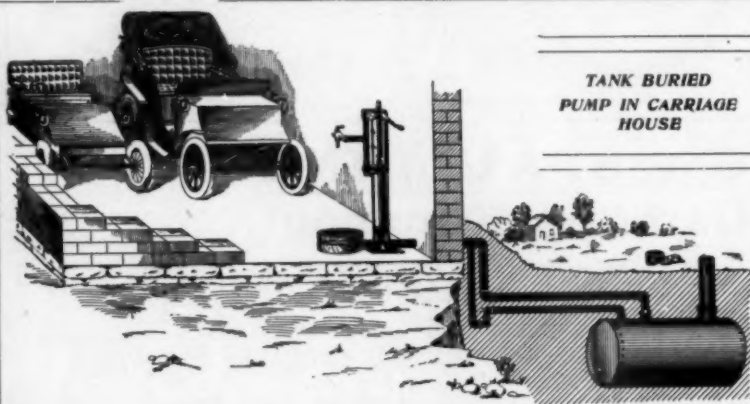
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CAPACITY, 10 MACHINES PER DAY.

IMMEDIATE DELIVERY.

We have done our  
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AGENTS  
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PUMP IN CARRIAGE  
HOUSE

**Take No Risks With Gasoline** but use a BOWSER Long  
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AGE OUTFIT. Meets all requirements of Insurance Companies and Fire  
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TANK OF HEAVY STEEL. . . RIVETED AND SOLDERED.  
Pump All of Metal. Measures Gallons, Half Gallons or Quarts.

Ask for  
Catalogue "Q" **S. F. BOWSER & CO.,** FORT WAYNE,  
IND.

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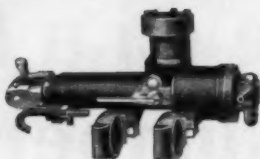
# Our Special Western Number

September will be the Special Western Number of the Automobile Magazine, and likewise the beginning of a new kind of work in this field. .. ..

It is to be, in the first place, an acknowledgment of the place and power of the great Middle-West in Automobile Development—in all its branches, direct and collateral. It will mark at the same time the extension of our touring and information service to the head of Lake Michigan and beyond. Nor will other current interests be overlooked. .. ..

This number will be of interest to all residing in that district, as well as to others contemplating going there, or those who wish to know about it on general automobiling principles. It is a very favorable time to start a new subscription. .. ..

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**1 Maiden Lane, New York City**



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Automatic Air Pump.**

Attaches to the rear axle of steam vehicles and without care or attention maintains a uniform air pressure in the fuel tank. Can be adjusted at any two points between 5 and 50 lbs. pressure. Set at 35 and 50 lbs., for instance, the machine locks when 50 lbs. pressure is reached, but starts again automatically when pressure reduces to 35 lbs. Don't bother with hand pump. Write for booklet, "Pump Points."

**Reason Automatic Air Pump Co.**

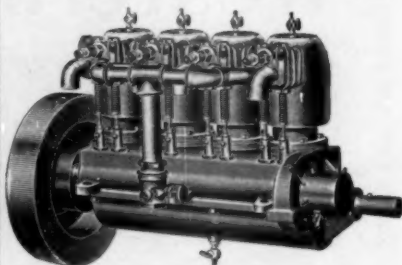
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Also adapted for blowing whistles on yachts and launches propelled otherwise than by steam. Special discounts to dealers.

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**PHINEAS JONES  
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**Artillery  
Wheels  
For  
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**One Quality—THE BEST**

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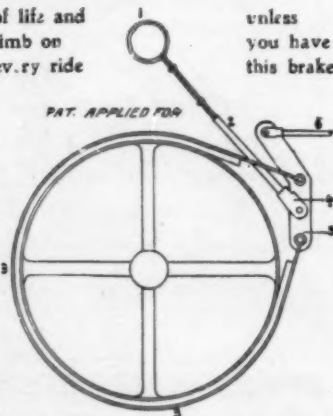
**301 to 313 MARKET ST.  
NEWARK, N. J.**

R. S. V. P.

## You are in DANGER

of life and  
limb on  
every ride

unless  
you have  
this brake!



**THIS BRAKE** holds in either direction—does not bind and **WILL HOLD YOU ANYWHERE.** Better send a postal and find out more about it.

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# THIS IS THE "RIG THAT RUNS"



## Everybody Knows It Now

They watched B 34 in the  
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NEVER MISSED A CONTROL  
NO MECHANICS  
NO HELPERS  
NOTHING SPECIAL

*Went in right cut of stock and went  
through on its merits, with a load of  
three passengers instead of two as in-  
tend. d.*

One of the best carriages at any  
price and undoubtedly the best value  
on the market.

Catalogs Free

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1120 Vandeventer Avenue, St. Louis, Mo.

When ordering your  
new machine spec-  
ify Clark Tires.

Easily Repaired.  
Cannot Rim Cut.  
Write for Catalogue.

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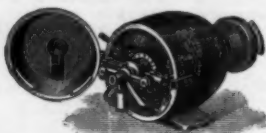
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CRESCENT RIM

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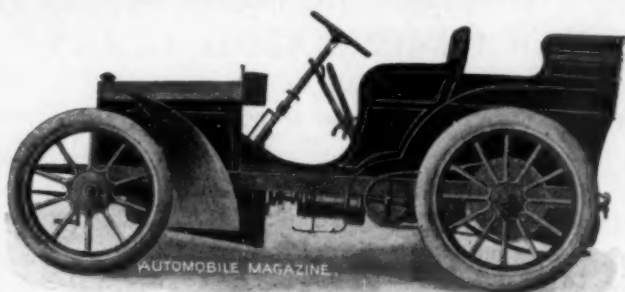
New Jersey is the natural summer resort for New Yorkers and for the Easterner as well for the simple reason that it is accessible. Exceptional train service, fine locations, wonderful bathing facilities, and a marvelous climate are the chief attractions. The popular route is the Sandy Hook, which leaves New York, Pier 8, N. R., and runs to Atlantic Highlands, where connection is made with the New Jersey Central for all New Jersey Coast resorts, including Seabright, Normandie, West End, Monmouth, Long Branch, Asbury Park, Allenhurst, Ocean Grove, Avon, Belmar, Spring Lake and Point Pleasant. The boats which comprise the fleet are models in convenience and equipment, and are the fastest plying from New York. The sea trip is delightful, and the rail portion of the journey is close to the water's edge. The New Jersey Central also operates a rail line to these resorts, passing Shrewsbury, Red Bank, Matawan, Beach Haven, Atlantic City, Ocean City and Cape May. Its trains are fast, frequent and finely equipped, and the principal ones have Buffet Parlor Cars. The General Passenger Department of the New Jersey Central, Sect. G. B., has just issued a hotel book, giving information regarding the principal hotels and boarding houses on its line. It's free for the asking; send for it.

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Best book we know of on the subject. Plain and practical. Gives directions for building the whole vehicle from motor to running gear. You want one. \$2.00.

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*The*  
**Road You Take**

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MAY MAKE OR MAR YOUR TRIP

You can save all trouble on this score by sending an inquiry — with stamp — to the

**Touring Department**  
**OF THE AUTOMOBILE MAGAZINE**

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*No. 1 Maiden Lane, New York*

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Routes which have appeared and can be had by addressing this office are:

**NEW YORK-ALBANY**  
**NEW YORK-NEW HAVEN**  
**NEW HAVEN-BOSTON**

## AUTOMOBILE RUNNING GEARS, SPUR COMPENSATING GEARS,

SUITABLE FOR STEAM, GAS OR ELECTRICITY

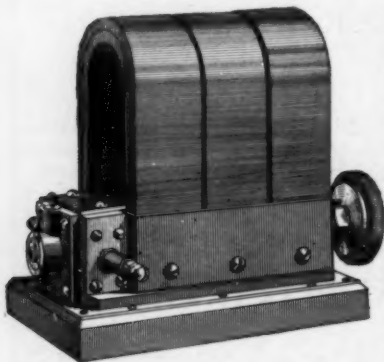
Our running gears are all equipped with our own make of self-contained spur compensating gears. No spreading of Rear Truss. Can supply the trade with Compensating Gears or Running Gears complete. Write for prices.

**Reading Automobile and Gear Company**

TENTH AND EXETER STREETS, READING, PA.

### THE NEW HENRICKS IGNITER

A SURE CURE FOR SPARKING TROUBLES. USED BY LEADING AUTO AND MARINE ENGINE BUILDERS. SUCCESSFULLY WORKS JUMP SPARK COIL.



Booklet telling all about it FREE.

**HENRICKS NOVELTY CO.,**  
617-619 So. Illinois St., Indianapolis, Ind.

# Waverley

## ELECTRIC AUTOMOBILES

Flexible gear prevents destruction of battery, adds to comfort of passengers.

Power equipment of unquestioned superiority designed to give satisfaction.

Quality and not cost the primary consideration, construction and finish therefore unequalled.

No delay in filling orders. Our facilities are designed to meet large demands.

**International Motor Car Co.**

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## SELF-PROPELLED VEHICLES

(J. E. Homans, A. M.)

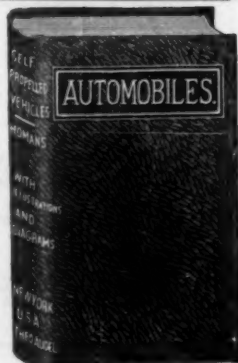
(A Complete Practical Handbook on the Automobile)

Containing full explanations, in plain language, on the theory, practice, operation, care and successful management of all types, Steam, Gasoline and Electric Vehicles.

A valuable treatise for Owners, Operators, Repairmen, Manufacturers, and all interested in Automobiles. Contains 640 pages, 500 illustrations and diagrams, size 6x8 3/4; handsomely bound. Complete list of contents and sample pages sent free on request.

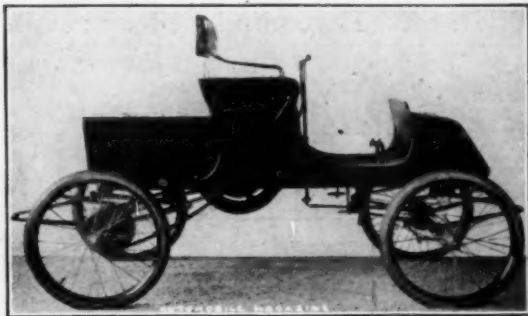
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J. C. PICKERING, President.

Every part save the body and tires constructed in our own factory; supervision of every detail and the closest inspection and test of the completed carriage, supply the reason for its marvellous efficiency. Price \$750. F. O. B. Kenosha, Wis. "What Others Think" and Catalogue A-M mailed free on request.

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W. H. Weber, Detroit, Mich.  
Cincinnati Automobile Co., Cincinnati, O.  
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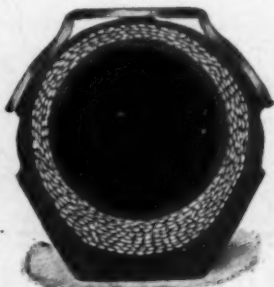
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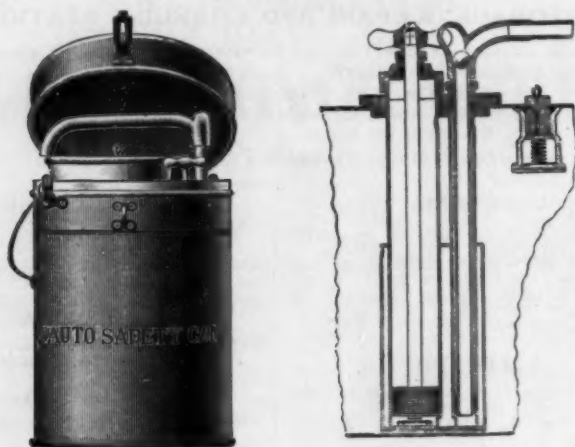
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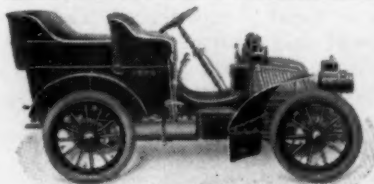
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Long Wheel Base with Even Distribution of Weight.  
Vertical Motors in front, Reliable and Accessible.

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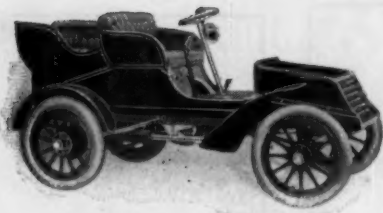
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SPRINGFIELD—H. L. Zobel, Jr. Telephone, 26-B. S. R. C.  
SOUTH ORANGE—W. L. Mead, 275 Ridgewood Road. G.—Repair.  
VINELAND—C. W. Pearson, N. 6th St. Telephone, 25 Interstate. S. R. C.

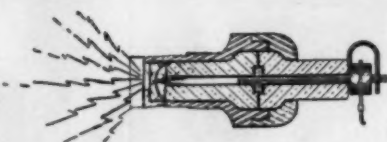
### NEW YORK

NEW YORK—Adams, McMurtry Co., 317 West 59th St. Telephone, 623 Columbus. S. R. C.  
NEW YORK—S. B. Bowman Automobile Co., 52 West 43d St. Telephone, 400 38th St. S. R. C.  
NEW YORK—Banker Bros. Co., 50 West 43d St. Telephone, 4138 38th St. S. R. C.  
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3. INSERTING RUBBER IN PUNCTURE.

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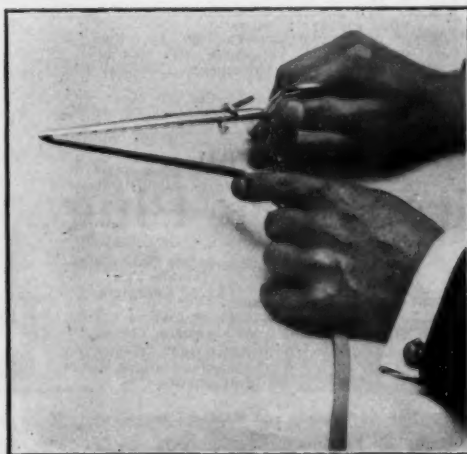
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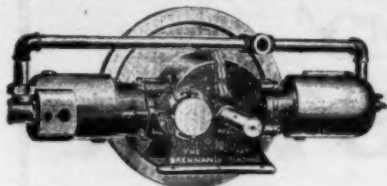


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BINGHAMTON—R. W. Whipple, 169 State St. S. R. C.

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Telephone, 4138 38th street. S. R. C.

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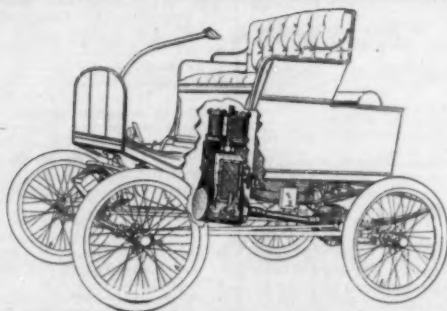
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Wheel Base 68 inches.

Weight 1000 lbs.

Carry 2 or 4 Passengers.

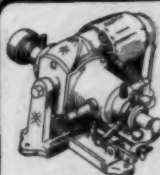
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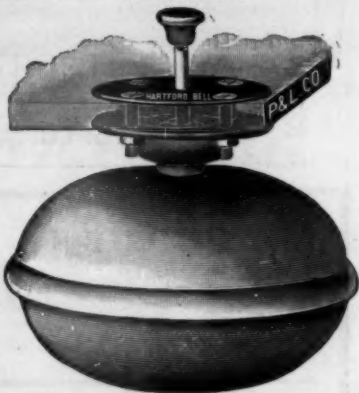


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# The Automobile Magazine

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VOL. IV No. 9

SEPTEMBER, 1902

PRICE 25 CENTS

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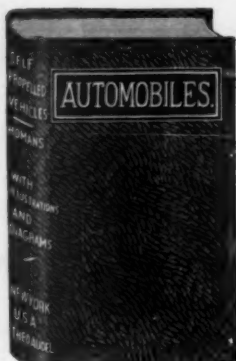
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YOUR  
VEHICLE**



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MANUFACTURER OF AUTOMOBILE SPECIALTIES,  
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Best book we know of on the subject. Plain and practical. Gives directions for building the whole vehicle from motor to running gear. You want one. \$2.00.

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174 Broadway

New York.

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There is scarcely any condition of ill-health that is not benefited by the occasional use of R·I·P·A·N·S Tablets. For sale by Druggists. The Five-Cent packet is enough for an ordinary occasion. The family bottle, 60 cents, contains a supply for a year.

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THE MASON REGULATOR CO.  
158 Summer St., Boston

### NEW JERSEY A UNIQUE SPOT.

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Indispensable for Starting Fire  
ON STEAM AUTOMOBILES

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Manufacturer of Gasoline Vehicles,  
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"I have taken these trips and did not realize what I had missed until I had afterwards read your descriptions and looked over your maps."

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No matter where you intend touring you will find it to your advantage to ask for route information from the TOURING DEPARTMENT of

## THE AUTOMOBILE MAGAZINE

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Any Section.  
Any Diameter.  
For Vehicles  
from 300 to  
2500 pounds.

Any Section.  
Any Diameter.  
For Wood or  
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We want your business. : : : :  
We make one hundred to your one.  
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Weston-Mott Co., Utica, N. Y.

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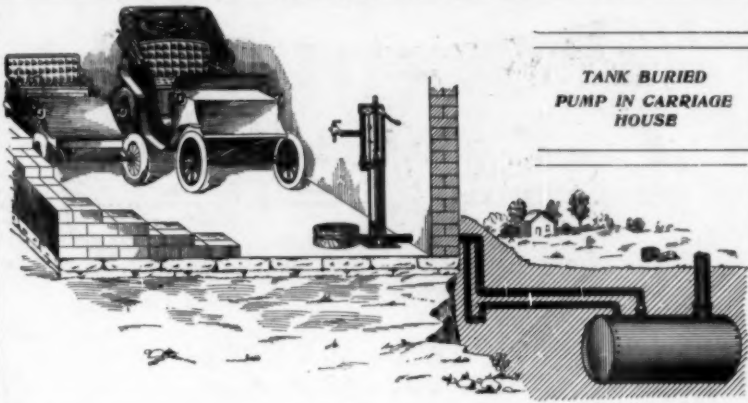
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mobile, its power, maker, price, stability, suitability,  
or anything else, can be quickly ascertained at no additional  
expense than for the postage employed in stating your  
difficulties to the

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OF

## The Automobile Magazine

1 MAIDEN LANE, NEW YORK CITY

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know we can find out for you—perhaps better than you can  
for yourself.

If you are having more than your share of auto  
troubles we can probably help you. Don't be bashful—  
send in your queries.

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WHEN YOU USE \* \* \*

## "WHALEBONE" TIRES.

WHY? BECAUSE

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|------|---|------|---|
| 1st. | They are puncture proof.  | 6th. | They are more graceful in design and outline than any other tire, and give an unequalled finish to the wheel. |
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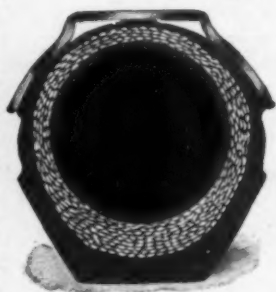
Successors to NEW BRUNSWICK RUBBER CO.

Manufacturers of High-Grade AUTO and CARRIAGE TIRES of all descriptions.

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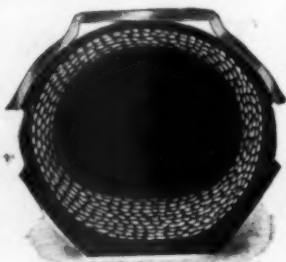
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Stay Thread  
Fabric, also  
Testimonials,  
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For a comparatively small premium we will protect you against loss from liability on account of accidents to any person or persons by means of the Automobiles in your service.

***Do not wait until you have a serious accident.  
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We are thinking of buying a marine motor and would like to investigate your make of same.

Yours truly,

[Signed],

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Asst Cashier, Mechanics National Bank

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Gentlemen's Automobile Rain and Dust Coats, Chauffeurs' Liveries and Furnishings, Gold and Silver Plated French Horns, Imported Mica Facelieres, Goggles, Masks and all other sundries.

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 CHICAGO—Hagmann & Hammerly, 931 Van Buren St. Telephone, West 262. S. R.  
 CHICAGO—Electric Vehicle Co., 267 Wabash Ave. S. R. C.  
 CHICAGO—Githins Bros., 1313-14 Michigan Ave. Telephone, So. 1658. S. R. C.  
 CHICAGO—Pardee & Co., 1404-6 Michigan Blvd. Tel. Calumet 2523. S. R. C.  
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# CRESTMOBILE

MOTORS  
SPARKING PLUGS  
AND  
COILS

SIMPLE  
DURABLE  
POWERFUL  
COMFORTABLE

PRICE \$550. & 600.

## CREST MFG. CO. CAMBRIDGEPORT MASS.



## The E. V.'s New Gasolene

**I**T has long been a mystery why a concern so perfectly equipped for turning out all sorts of vehicles as the Electric Vehicle Co. are should not have entered more largely into the manufacture of gasolene vehicles. Large bodies, and the Hartford concern is one, move slowly, but when they do move it is in a way which makes the movement one from which retrogression is impossible. To be sure that they had a gasolene vehicle which would go the route and survive the going of it has been the cause for constant and exhaustive experimenting on the part of the Electric Vehicle Co.; and now they are prepared to offer the public an explosive

### Catalogue Claim Illustrated



"Our intake valve is so simple a child can work it."

motored carriage which will be a fit running mate for the company's electric vehicle, which is equivalent to saying one of the best made. The new carriage is equipped with a double cylinder motor and outwardly follows the general lines of the best French mode's. One of its distinguishing features is complete accessibility of all parts of the motor and driving mechanism. It is stated that at a recent demonstration of this accessibility the inlet valves and igniter plugs of both cylinders were removed and replaced and the engine started, all in less than thirty seconds.

### Light-weight ; Air Cooled

To meet the continued demand for a vehicle driven by an air cooled motor, by means of which all of the discomfort of a water jacketed one is avoided, the Crest Mfg. Co., of Cambridgeport, Mass., are bringing out a taking little vehicle with a  $3\frac{1}{2}$  H. P. motor, which weighs only about 500 pounds. The general arrangement of the machinery is very simple, everything being visible. For this reason no disarrangement of mechanism is likely to take place, and danger of accident is avoided, as every part can be examined; there is no occasion to get under the carriage or remove any part of the body to get at the machinery. The motor and carbureter being on the front axle keeps both free from dust and dirt, since all dirt thrown from the wheels passes to the rear. Other advantages are that the weight is more evenly distributed on the wheels, making equal wear of tires, also eliminating side slip and vibration.

### Too Offish

"Have you seen Speeder lately?"

"No."

"He's a sight. Face all cut, arm in a sling and walks lame."

"How did he do it? On that big racer of his, I suppose?"

"No; if he could have stayed on that after he had run into a pile of paving stones he'd have been all right."

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THIS IS OUR NEW MODEL F.

Are built for those to whom tried out efficiency is the first requisite. Past achievements speak for themselves.

Brought strictly up-to-date and are the acme of simplicity and reliability. We make no attempt to compete on price. If you are interested in this kind of a carriage, write us, or better

Ask the man who owns one.

## Ohio Automobile Co., WARREN, OHIO.

Eastern Department, Adams, McMurry Company, 114 Fifth Avenue, New York.

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BABYLON—H. B. Smith, Main St. S. R.  
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BROOKLYN—Alex. E. Pastre, 519 Sixth Ave. Telephone, 464F South. S. R. C.  
BROOKLYN—Brooklyn Automobile Co., 1239 Fulton St. Telephone, 705 Bedford Branch. S. R. C.  
BROOKLYN—Champion Automobile Co., 68 Montague St. Telephone, 1863 Main. S. R.  
BROOKLYN—International Motor Car Co., 342-344 Flatbush Ave. Telephone, 1651 Main. S. R. C.  
BROOKLYN—J. W. Mears, 754 Bedford Ave. Telephone, 2356. S. R. C.  
BROOKLYN—F. Lauterbach, Flatbush and Ocean Aves. Telephone, 4261 Flatbush. S. R. C.

BROOKLYN—Patterson & Shaw, 58 Seehorn St. Telephone, 3710 Main. S. R. C.  
BROOKLYN—Prospect Park Storage Co., 3 Prospect Park West. Telephone, 969 Prospect. S. R. C.  
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BROOKLYN—Maltby, Frank D., 10 Clinton St. Telephone, 1225 Main. S. R. C.  
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FAR ROCKAWAY—D. S. Starks. Telephone, 11-A. S. R.  
FLUSHING—Nicks Auto Depot, 81 Grove St. Telephone, 233-a Flushing. S. R. C.  
GARDEN CITY—August Porrier, Franklin St. Telephone, 42-A. Charge.  
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HUNTINGTON—Arthur & Flessel, 53 Main St. S. R.  
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BALTIMORE—Balt. Motor Carriage Co., 327 N. Calvert St. Telephone, 3296Y. S. R.  
BALTIMORE—O. L. Gooden, 1118 Cathedral St. Telephone, B. 1121. C. & P. 1199-A.  
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### Specialties

**Tonkin Dry Plate Boilers**  
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**Heavy Truck Boilers**  
**Perfect Kerosene Burners**

.....Write for Catalogue and Prices.....

**TONKIN BOILER COMPANY, Oswego, N. Y.**



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## Out of Sight When Not Used

**P**ERHAPS no single feature of the automobilist's makeup is so essential to his comfort as eyeshields are, and certainly nothing has produced so much caricature and cheap witticism as these same eyeshields. To have eye protectors always available, while at the same time to have them inconspicuous when not in use has been a thing long sought after, yet not heretofore possible. The two cuts herewith are self-explanatory. In the



first the shields are shown in position, while the second one shows how they are successfully stowed away when not wanted. Made of aluminum and weighing but three-eighths of an ounce, these handy little eye protectors, which will fit any cap, are sure to become extremely popular.

When conditions are favorable and the shields are not needed they are turned up and securely held out of the way under



der the visor, from which they can be lowered and put into use in an instant. When desired, colored lenses are supplied to protect the eyes from the strong glare of sunlight, or the reflection from white or snow-covered road surfaces. Perhaps the strangest part of the whole affair is that the price asked for these really clever little comforters is not at all out of proportion to their value, which is not the usual way of pricing anything offered to automobilists.

### The Scorcher's Farewell

(After the schoolbook "Arabian Tale.")

My racer! my racer! that standeth meekly by,  
With thy brasses bright, and thy guiding wheel on spindle high;  
Fret not to roam the roadway now with all thy wondrous speed;  
I may not use thee thus again—thou'rt sold, my gallant steed.  
The stranger hath thy steering now, he takes thee from my porch;  
I have his gold, but ne'er again shall I upon thee scorch.  
I ne'er shall scorch again! Away! The fevered dream is o'er.  
I could not live a day and know that I shall speed no more.  
They tempted me, my racer, for money's power is strong.  
They tempted me, my racer—but I have motored too long.  
Who said that I had given thee up? Who said that thou wast sold?  
'Tis false! 'Tis false, my racer, I fling them back their gold.  
Thus, thus I leap upon thy seat. Let no one dare to stop.  
Away! who overtakes me now is a pretty speedy cop!

### Declined to Be an Extremist

"Whew! Isn't this day a scorcher?"

"It has been a disagreeable, exasperating, muggy, infernally hot day. But I would not call it such a mean name as that."

### Where Good Intention Pavement Abounds

St. Peter—We don't seem to be getting many automobile racers here.

Gabriel—Perhaps they want to go where they can scorch.

# Beauty Strength Quality Workmanship

Is found in our Reachless Gear. Five styles for 600 to 3,000 pound vehicles. We will not compete against cheap goods which are in the long run costly to purchasers. ... We furnish our Duplex and Compound Engines and guarantee them. Complete vehicles, less power, also made

Prompt Shipments.

Send for Particulars.

Address

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PHOTOGRAPHS OF GEARS AND ENGINES, 25 CENTS EACH.

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BOSTON—Winton Motor Carriage Co., 41 Stanhope St. S. R.  
BOSTON—Winton Motor Carriage Co., 41 Stanhope St. Telephone, 776 Columbus. R. S.  
BOSTON—Columbus Automobile Exchange, 147 Columbus Ave. Telephone, 388-2 Tremont. S. R.  
BOSTON—Automobile Headquarters, 66 Stanhope St. Telephone, 842-2 Tremont. S. R. C.  
BOSTON—Park Square Auto. Station No. 1, 43 Columbus Ave. Telephone, Tremont 616. S. R. C.  
BOSTON—H. B. Shattuck & Son, 239 Columbus Ave. S. R. C.  
CAMBRIDGE—Harvard Auto. Co., 8-10 Palmer St. Telephone, 72-2 Camb. S. R. C.  
CANTON—J. E. Kelley. S. R. C.  
CLINTON—Clinton Mch. Works, 460 High St. Telephone, 153-5. S. R.  
CONCORD—John McKuyer. Telephone, 14-5. S. R. C.  
CONCORD—John M. Keyes, Monument St. Telephone, 41-6 and 14-5. S. R. C.  
DORCHESTER—Barden Cycle Co., 232 Adams St. S. R.  
FRANKLIN—Franklin Cycle Co., Central Sq. S. R. C.  
HUDSON—F. D. Knight & Son, 49 Church St. R.  
MARLBORO—Marlboro Auto & Car Co. Telephone, 9154-13. S. R.  
MEDFORD—F. H. Greaney, 60 Park St.; 439 High St., W. Medford. Telephone, 27-8 Medford. S. R. C.

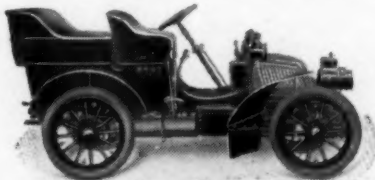
NEWTONVILLE—Fred J. Read, 821 Washington St. Telephone, 326-3. S. R.  
NEWTON HIGHLANDS—Woodworth Bros., 2 Hartford St. Telephone, 153-3. S. R.  
NO. ATTLEBORO—John P. Ballou, 175 Washington St. S. R. C.  
PLYMOUTH—G. E. Rounds. Telephone, 206-3. S. R. C.  
ROXBURY—Wilson Ourish, 470 Blue Hill Ave. Grove Hill. Telephone, Rox. 65. S. R. C.  
SO. FRAMINGHAM—Chas. F. Whyte, 17 & 19 Irving St. R.  
SPRINGFIELD—Headquarters, 38 Dwight St. Telephone, 1130. S. R. C.  
SPRINGFIELD—Nat. Auto. Supply Co., 226 Worthington St. Telephone, 519-3. S. R.  
SPRINGFIELD—Springfield Auto. Co., 60 Main St. Telephone, 853-4. S. R. C.  
STOUGHTON—James Lehan, Lehan's Bldg. Telephone, 38-4 and 38-7. S. R. C.  
WALTHAM—Harvard Auto Corporation. S. R.  
WESTFIELD—Loomis Automobile Co. S. R. C.  
WORCESTER—Worcester Automobile Co., 30 Exchange St. Telephone, 1444. S. R. C.  
WORCESTER—Worcester Automobile Station No. 1, 43 Foster St. Telephone, 659-4. S. R.  
WORCESTER—Birney A. Robinson, 671 Main St. Telephone, 1550. S. C. R.

## MICHIGAN

GRAND RAPIDS—Louis C. Howard, 35 N. Division St. Telephone, 2195 City. S. R. C.  
MUSKEGON—Dr. C. J. Dove. S. R. C.  
MENOMINEE—D. F. Poyer, 518 Main St. Telephone, 126. S. R. C.

## MINNESOTA

MINNEAPOLIS—Great Western Cycle Co., 601 First Ave. Telephone, 1929 Main. S. R. C.



16 H. P., with Detachable Tonneau.

## THE PEERLESS MANUFACTURING CO., Cleveland, Ohio.

AGENTS:—NEW YORK CITY—Banker Bros. Co., 250 West 80th Street. PITTSBURG—Banker Bros. Co., Baum and Beatty Sts., East End, for Pennsylvania. PHILADELPHIA—Banker Bros. Co., Broad and Vine Streets. DETROIT—J. P. Schneider, 187-189 Jefferson Ave., near Woodward. BUFFALO—Ellicott Evans, 84 White Bldg. TORONTO—Canada Cycle and Motor Co., Ltd., 34 King Street, West, for the Dominion of Canada. BOSTON—F. E. Randall, 245 Columbus Ave., for New England. TOLEDO—Wilson & Co., 811 Jefferson Avenue.

## The Peerless Motor Car

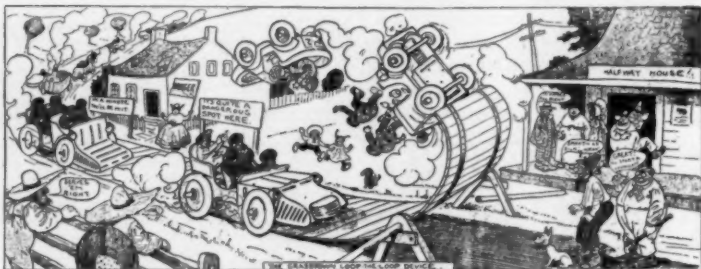
**BUILT IN AMERICA  
FOR AMERICAN ROADS**

Thoroughly Satisfactory, Comfortable, Elegant, Impressive.  
Low Center of Gravity with ample road clearance.  
Long Wheel Base with Even Distribution of Weight.  
Vertical Motors in front, Reliable and Accessible.  
Genuine De Dion Spark Plugs and Batteries.

## Private Electric Plants

**N**OTHING has retarded the sale of the electric vehicle so much as the disinclination of automobilists to own a conveyance the power to run which had always to be purchased from some one else. In the cities and larger towns, where charging plants were at hand, many electrics have been sold, but when it came to rural localities the choice of such a motive power has not been deemed advisable. With a plant like the one here shown a man can not only light his house, but charge his automobile at comparatively no expense, bother or attention once he has installed his own electric generating and storing system. The introducers of this inexpensive method of generating light and power, Messrs. Jantzen & Campion, 267 West Thirty-ninth street, New York City, guarantee it will do all that they promise, and they are prepared to submit plans for private electric plants at prices which are very much below what the general public think such things cost. With such economical supplies of electric power as these plants seem to be the possibilities of the electrically propelled vehicle are extended to a degree which only a short time since would have been deemed impossible.

## A Western Scorcher Discourager



—From Kansas City World.

## Quick Firer for Steamers

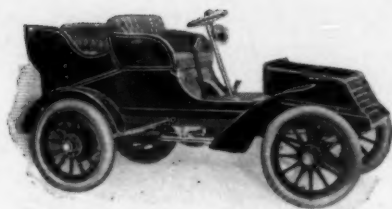
Have you ever had occasion to bless the man who invented the steam motored vehicle, and failed to provide his invention with some method of quickly getting up steam? You need not in the future waste time and expletives upon the man whose lack of ingenuity robbed you of the pleasure which automobiling should give. Thanks to a simple little contrivance made by J. F. Hathaway, a West Somerville, Mass., sufferer from the need of a quick and ever ready steam starter, the owner of a steam vehicle can now afford to laugh at his friend of the gasoline persuasion when he sees him toying with the crank before getting under way. The Hathaway idea has the right of way when it comes to eliminating from the steam vehicle one of its greatest drawbacks.

## Enthusiasm vs. Commercialism

"I can't express my satisfaction with my new runabout," wrote the enthusiastic automobilist to the maker of the vehicle upon its receipt.

"Use signs—\$\$\$," was the reply which came from the maker, he not having been paid in full for the satisfactory runabout aforementioned.





WINTON TOURING CAR

## WINTON

*Gold Medal (first award) in the  
Official Speed Trials.*

*Silver Cup (first award) in the  
Official Hill Climbing Trials.*

*Blue Ribbon (first award) in the  
Official 100 Mile Non-Stop  
Endurance Trials.*

It contains the simplest, most practical and  
best constructed motor manufactured or sold  
in America.

OUR NEW CATALOG SENT UPON REQUEST

**THE WINTON MOTOR CARRIAGE CO., Cleveland, U.S.A.**

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BOSTON

PHILADELPHIA

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Pine St. S. R. C.  
KANSAS CITY—Day Auto. Co., 1407 So. 12th  
St. Telephone, 1742 Main. S. R.  
ST. LOUIS—Halsey Auto. Co., 4259-65 Olive  
St. "Both 'Phones." S. R. C.  
ST. LOUIS—Day Auto. Co., 1010 Olive St.  
Telephone, Bell, Main 1310. S. R.

### NEW JERSEY

ASBURY PARK—C. R. Zacharias, 725 Mat-  
tison Ave. Telephone, 40F. S. R. C.  
ATLANTIC CITY—Arthur Boyce, 1735 Atlan-  
tic Ave. Telephone, 111-F and 766-F. S. R.  
BERLIN—Townsend Dowd. Telephone, 8X.  
"RIDGETOWN—Jacob R. Elwell. R.  
BURLINGTON—Gray Mfg. Co., 1116 Main St.  
S. R.  
EAST ORANGE—John M. Schmidt, 22 Rail-  
road Pl. Telephone, 1504 E. O. S. R. C.  
EGG HARBOR—Jacob Wimberg. Telephone,  
Bell. S. R. C.  
HACKENSACK—Davison Eng. Co., Main and  
Bridge Sts. Telephone, 175-I. S. R. C.  
Main St. S. R. C.  
HACKENSACK—Wood & Bedly, 311 and 313  
Main St. S. R. C.  
HACKETTSTOWN—M. S. Neighbor, Hope  
St. (King Bldg.). S. R. C.  
HOBOKEN—Meyer, V. F., 520 Washington  
St. Telephone, 117-B Hoboken. S. R. C.  
JERSEY CITY—Crescent Cycle & Automobile  
Co., 548 Communipaw Ave. Telephone,  
1232 Bergen. S. R. C.  
JERSEY CITY—D. W. Romaine, 70 Erie St.  
Telephone, 1559 F. S. R. C.  
JERSEY CITY—Geo. A. Smythe, 2926 Boule-  
vard. S. R.  
LAKEWOOD—Jos. B. Hoff, Main St., foot of  
Lex Ave. Telephone, 125B. S. R. C.  
MORRISTOWN—Willis H. Dretton, 24 Wash-  
ington St. Telephone, 173. S. R. C.

NEWARK—New Jersey Automobile  
Co., 8 Central Ave. Telephone, 734  
Newark. S. R. C.

NEWARK—The Automobile Company, 79  
Orange St. Telephone, 750. S. R. C.  
NEWARK—J. W. Geissler, 46 William St.  
S. R. C.

NEWARK—L. Lawrence, 241 Halsey St. S.  
R. C.

NEWARK—Lewis J. Worth, 26-28 William  
St. S. R. C.

NEWARK—Koehler Sporting Goods Co., H.  
J., 845 Broad St. Telephone, 2564 Newark.  
S. R. C.

NEWARK—C. S. Calvert, 141 Halsey St. Tel-  
ephone, 3714. S. R. C.

NEW BRUNSWICK—Wm. J. McDede, 68-70  
Albany St. S. R. C.

NEW EGYPT—Chafey & Brown. S. R. C.

PASSAIC—Geo. De W. Brown, 271 Main  
Ave. Telephone, 206 B. Passaic. S. R.

PATERSON—Stockbridge, F. W., Broadway &  
15th St. Telephone, 2433 Paterson. S. R.  
C.

RED BANK—Geo. H. Patterson, 8 Broad St.  
S. R. C.

RIDGEWOOD—S. B. Hagerman, Bergen Co.  
S. R. C.

SEABRIGHT—H. L. Zobel, Jr. Telephone,  
26-B. S. R. C.

SOUTH ORANGE—W. L. Mead, 275 Ridge-  
wood Road. G.—Repair.

SUMMIT—C. C. Henry. R.

SWEDSBORO—Chas. Hall. S. R.

VINELAND—C. W. Pearson, N. 6th St. Tel-  
ephone, 25 Interstate. S. R.

### NEW YORK

NEW YORK—Adams, McMurtry Co., 317 West  
59th St. Telephone, 623 Columbus. S.  
R. C.

# "THE RUTENBER"

Factory, Logansport, Ind.

WATER COOLED, FOUR CYCLE, UPRIGHT GASOLINE MOTORS. TWO  
AND FOUR CYLINDER TYPE. FROM 3 TO 60 H.P. FOR AUTOMOBILES  
AND LAUNCHES. FROM 10 TO 150 H.P. FOR STATIONARY PURPOSES.

**Also Automobiles of Every Style,  
Delivery Wagons, Omnibuses and Auto Trucks**

SEND FOR PRICES

**THE RUTENBER MANUFACTURING CO., 115 DEARBORN STREET, CHICAGO**

In answering advertisements please mention THE AUTOMOBILE MAGAZINE.

## Successful Kerosene Burner at Last

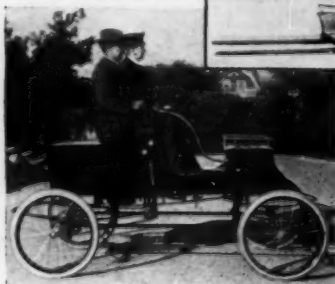
**N**O one can deny that the difficulty of securing satisfactory gasoline away from populous centres has been one of the greatest drawbacks to its use by automobilists, even when the question of the price of the fuel was not an object. To burn kerosene noiselessly, without smoke or smell, has been the thing sought for, but which has not been so easily found. The International Motor Car Co., of Toledo, announce that they are now prepared to fit a perfect kerosene burner to any of their Toledo carriages at no extra expense to the purchaser, if he stipulates the kerosene burner when ordering his carriage. Nine gallons of kerosene with the I. M. C. Co.'s new burner has with barely thirty pounds of pressure been sufficient to propel a Toledo carriage over 100 miles.

## Doubles the Seating Capacity

Appliances intended for increasing the carrying capacity of a vehicle have not proven altogether unsuccessful, but the roominess thus gained has been attained only at a sacrifice of all appearances. They tell the story of result has been se-



usually been at a sacrifice of all appearances herewith where the desired result has been cured without it



being possible for the ordinary observer to detect that the extension is only a temporary affair. J. F. Hathaway, West Somerville, Mass., is the ingenious inventor of the idea.

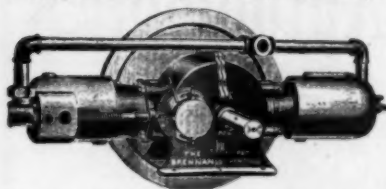
## An Unusually Cheap Tire

When a guaranteed air-tight pneumatic automobile tire can be made and sold at a profit for \$10, then, verily, the golden days of automobiling are indeed come to pass. The Post & Lester Co., who elsewhere in this issue make an offer to do this, are a responsible concern, and one whose word can be accepted without any hesitancy; were it otherwise, one would be tempted to think that the price asked robbed the tire of having any possible value. As it is, those who are looking for a real bargain surely should be able to find one in this \$10 tire.

When the public has faith in a manufacturer it is based upon good works.

# Brennan Standard Gasoline Motors

Develop their rated power at moderate speed. Manufactured in sizes from 4 to 30 H. P.



It ought to go without saying, the better the motor in your auto the greater satisfaction it will give. If you want the best have your auto fitted with a Brennan Standard Gasoline Motor. Guaranteed to give satisfaction or money refunded.

6, 8, 15 and 20 H. P. SPECIAL with transmission gear on motor shaft.

Our Double Cylinder Vertical Motors are just the thing for your bonnet. Write us and learn more about them.

**BRENNAN MOTOR CO.,**

**Syracuse, N. Y.**

## NEW YORK—Continued

NEW YORK—S. B. Bowman Automobile Co., 52 West 43d St. Telephone, 400 38th St. S. R. C.  
 NEW YORK—Banker Bros. Co., 50 West 43d St. Telephone, 4133 38th St. S. R. C.  
 NEW YORK—International Motor Car Co., 91 Fifth Ave. Telephone, 1407 18th St. S. R. C.  
 NEW YORK—Manhattan Automobile Co., 56 West 43d St. S. R. C.  
 NEW YORK—Geo. Mortensen, 150 West 38th St. S. R. C.  
 NEW YORK—Oldsmobile Co., 40 West 60th St. Telephone, 2580 Columbus. S. R. C.  
 NEW YORK—New York Automobile Repository, 143 West 51st St. Telephone, 1601 Columbus. S. R. C.  
 NEW YORK—Pa-Delford & Bell, 250 West 80th St. Telephone, 2562 Riverside. S. R. C.  
 NEW YORK—St. Nicholas Automobile Depot, 55 West 66th St. Telephone, 1271 Columbus. S. R. C.  
 NEW YORK—Westchester Automobile Co., 12 East 27th St. Telephone, 192 Madison Sq. 523 Fifth Ave. Telephone, 6029 38th St. S. R. C.  
 NEW YORK—W. H. Webster Automobile Co., 10 West 60th St. Telephone, 1574 Columbus. S. R. C.  
 NEW YORK—A. Elliott Ranney, 306 W. Fifty-ninth street. Telephone, 2060 Columbus. S. R. C.  
 NEW YORK CITY—Spalding-Bidwell Co., 28-40 West 43d St. Telephone, 691 38th St. S. R. C.  
 NEW YORK CITY—Chas. Strathmann, 175 E. 120th St. Telephone, 1444-A Harlem. S. R. C.  
 NEW YORK CITY—Smith & Mabley, 7th Ave. and 38th St. Telephone, 6945, 38th.  
 NEW YORK CITY—"The Central," 1694 Broadway, between 52d and 53d Sts. Telephone, 596 Columbus. S. R. C.

NEW YORK CITY—John Wanamaker, 140 E. 57th St. Telephone, 1161 38th St. S. R. C.  
 NEW YORK—West End Automobile Exchange, 152 West 127th St. Telephone, 3326 Harlem. S. R. C.  
 NEW YORK—Geo. Mortensen, 150 West 38th St. Telephone, 6532 38th St. S. R. C.  
 NEW YORK—Ajax Motor Vehicle Co., 220 West 38th St. Telephone, 5376 38th St. S. R. C.  
 NEW YORK CITY—Automobile Exchange & Storage Co., 133-139 West 38th St. Telephone, 5504 38th St. S. R. C.  
 NEW YORK CITY—Harlem Automobile Co., 159-163 West 127th St. Telephone, 1459 Harlem. S. R. C.  
 NEW YORK—Knickerbocker Automobile Station, 143 West 51st St. Telephone, 1601 Columbus. S. R. C.  
 NEW YORK—Diamond Cycle Co., 209 West 128th St. R.  
 NEW YORK—Eureka Automobile Agency, 2285 Eighth Ave., 123d St. Telephone, 3493 Harlem. S. R. C.  
 NEW YORK—Storage Battery Supply Co., 239 E. 27th St. Telephone, 1065 Madison Sq. S. R. C.  
 NEW YORK—West End Storage Warehouse, 202-210 West 89th St. Telephone, 144 Riverside. S. R. C.  
 NEW YORK—Lewis H. Woods, 2376 Jerome Ave. 306 Tremont. S. R. C.  
 ALBANY—F. G. Robinson, 422 Broadway and 97 Central Ave. S. R. C.  
 BINGHAMTON—R. W. Whipple, 169 State St. S. R. C.  
 BUFFALO—G. H. Popenberg, 636 Main St. Telephone, Tupper 472. S. R. C.  
 BUFFALO—Buffalo Auto. Exchange, 320 Franklin St. Telephone, Lupper 870. S. R. C.  
 HERKIMER—J. C. Keefe, 141 Main St. S. R. MT. VERNON—Jos. A. Henning, 205 Stevens Ave. Telephone, 100F Mt. V. S. R.

## GEORGES RICHARD CARS IMMEDIATELY

Of all the light power imported cars, my judgment is that there is none superior in efficiency, reliability and construction to the h. p. Georges Richard.  
 Actual tests against all competitors have demonstrated the superiority of the engine, its control, economy and hill climbing abilities.

I have made an arrangement with the builders whereby a limited number of the Georges Richard cars will be shipped each week.

For wide-awake buyers, who want a superior light power car, here is an opportunity for immediate delivery.

We are always ready to demonstrate to interested inquirers.

**ALEXANDER FISCHER, 239 West 50th Street, New York**

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# Columbia Automobiles

**ELECTRIC — GASOLINE**

Seventh  
Year  
Of  
Success



Vehicles  
for  
All  
Requirements

Runabouts  
Delivery Wagons  
Broughams

Surreys  
Victorias

Tonneaus  
Cabriolets  
Trucks

*Write for Our New 24-Page Catalogue*

**ELECTRIC VEHICLE CO., HARTFORD, CONN.**

New York, 100 Broadway    Boston, 43 Columbus Ave.    Chicago, 1421 Michigan Ave.



The tires on an automobile either increase or retard its speed. Resilient tires give additional power and greater mileage.

## G & J TIRES

have been proven the speediest of all vehicle tires, and they wear longest. Descriptive catalog and full information on request.

G & J TIRE CO., INDIANAPOLIS.

## ECONOMICAL IGNITION

IT is very foolish to spend much money on ignition when the most reliable can be obtained for little money. We have interesting printed matter on this subject and will be glad to send you full details of the Apple Economical Igniting outfits for either touch or jump spark. We manufacture everything in the ignition line for automobile, marine or stationary engines.



## The Dayton Electrical Mfg. Co.

250 ST. CLAIR STREET, DAYTON, OHIO

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Chicago Office  
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Linmar Bldg.

## Use Albany Grease for your Automobile.

### WHY?

It is the only safe lubricant under all conditions. It is always uniform in quality.

It does the work; every particle is a lubricant.

It avoids hot bearings and will not gum.

It will bring you back in as good condition as when you started.

It is used by most manufacturers of automobiles to start their new machines.

Use No. 2 grade for Winter and No. 3 for Summer.

The quality of all grades is the same, the only difference is in consistency.

It can be purchased the world over from engine and mill supply hardware oil houses.

Only made by

Adam Cook's Sons, 313 West St., N. Y. City, U.S.A.

This Trade Mark on Every Package.



Look out for Yellow Label.

### NEW YORK Continued

NEW ROCHELLE—A. Lams, 277 Main St. Telephone, 268A. S. R.

NIAGARA FALLS—W. H. Davey, 231 First St. Telephone, Bell 236-X. S. R.

ONEIDA—Oneida Rubber Tire Works, Cedar and Phelps Sts. Telephone, Bell. S. R. C.

FOUGHKEEPSIE—John Van Benschoten, 14-20 Catherine St. Telephone, 29-A. S. R. C.

RHINEBECK—J. Vonderlinden. S. R. C.

ROCHESTER—Jos. J. Mandery, 150-170 South Ave. S. R. C.

ROCHFSTER—Rochester Auto. Co., 150-170 South Ave. Telephone, 3. S. R. C.

SCHENECTADY—A. R. Burtles & Son, 148-15 Jay St. Telephone, 202-D. S. R. C.

SUFFERN—J. B. Campbell, Orange and Lafayette Aves. S. R. C.

SYRACUSE—Syracuse Auto. Co., 346-348 S. Warren street. Telephone, 955. S. R. C.

TROY—James Lucey, 329-351 Fulton St. Telephone, 399-M. S. R. C.

UTICA—Miller-Mundy Motor Car Co., Oneida Square Telephone 884A. S. R. C.

UTICA—Utica Auto. Co., W. H. Birdsall, Mgr. Telephone, 1U. S. R. C.

WHITE PLAINS—E. P. Horton, 105 Railroad Ave. Telephone, 20 B. R.

### OHIO

CINCINNATI—Cincinnati Auto. Co., 807-809 Race St. Telephone, Main 2329. S. R. C.

LIMA—W. E. Rudy, 125 E. Market St. Telephone, 6481. S. R.

COLUMBUS—Avery & Davis. Telephone, 1844. S. R. C.

COLUMBUS—Oscar S. Lear, 201 S. High St. Telephone, 739. S. R. C.

DAYTON—Kiser & Co., 29 E. 2d St. Telephone, 1087. S. R. C.

SPRINGFIELD—D. Vanderpool, 13 E. High street. Telephone, 10762. S. R. C.

YOUNGSTOWN—A. E. Bown, 134 E. Federal St. Telephone, 1034. S. R.

### OKLAHOMA

EL RENO—I. F. Hensley. S. R. C.

### PENNSYLVANIA

CHESTER—John Taylor, 504 Market St. Telephone, 652. S. R. C.

COLLEGEVILLE—Geo. F. Clamer, Main St., above R. R. Station. S. R.

BETHLEHEM—Lawrence L. Beckel, 211 S. Main St. S. R.

BRISTOL—C. R. Thompson, 611-13 Bath St. Telephone, Standard. S. R.

EASTON—George G. Snyder, 200 S. 3d St. S. R. C.

HARRISBURG—Kline Cycle Mfg. Co., 12 N. Mkt. Square. Telephone, 642 X. S. R. C.

PHILADELPHIA—Banker Brothers, Broad and Vine Sts. Telephone, 1-39-11. S. R. C.

PHILADELPHIA—Quaker City Automobile Co., 304 North Broad St. Telephone, 1-33-83. S. R. C.

PHILADELPHIA—Hart Cycle & Auto. Co., 328 Arch St.

PHILADELPHIA—Parkin & Le Fleur Motor Cycle Co., 2740 No. Broad St. S. R. C.

PHILADELPHIA—Jno. Wanamaker, Twenty-third and Walnut streets. Tel. 1-38-65. S. R. C.

PITTSBURGH—Banker Brothers, Baum and Beatty Sts. S. R.

NEW CASTLE—Kirk & Smith. Telephone, Bell 13. S. R. C.

READING—Chas. A. Miller, 23 Wood street. Tel. 133-F. S. R. C.

READING—Duryea Power Co., River St. Telephone, 1422. S. R.

READING—E. S. Youse, 46 N. 5th St. Telephone, 147 C. S. R.

SCRANTON—R. W. Whipple, 530 Spruce St. S. R. C.

SELLERSVILLE—Andrew C. Graft, Main St. S. R. C.



Wheel Base 68 Inches.

Weight 1000 lbs.

Carry 2 or 4 Passengers.

## Prescott Touring Car

Two Double Acting Brakes on Rear Hubs; Heavy New Design Running Gear; American Roller Bearings; Large Fuel and Water Capacity; New Indestructible Burner; Pilot Light Never Blows Out; Superheated Steam Doubles the Mileage of Water; Economy of Fuel; Encased Engine; Automatic Lubricator.

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83 Chambers St., New York

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WITH **OIL** — SMUTTING SPARK-  
PLUGS AND HEATING CYLINDERS  
—ASK YOUR DEALER FOR THE

## Famous **VISCO OILS**

THEY ARE SPECIALLY MANUFAC-  
TURED FOR **AUTOMOBILE** USE,  
AND DO THEIR WORK SATISFAC-  
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51 FRONT STREET, NEW YORK

Address and Telephone numbers of all Red Book Depots will be published  
each month in the **AUTOMOBILE MAGAZINE** and the **RED BOOK DIRECTORY**.  
Applications for official Red Book Depots should be made to above address.



OW shall I determine the value of an automobile without personal experiment?" is the question the prospective buyer must ask himself. "The proof of the pudding is in the eating." We entered three cars in both the Long Island and the A. C. A. Endurance Contests, and each of them finished the entire 100 miles without a stop. Six trips of 100 miles each without a single stop. Six records of 100 per cent. each. If you wish to know more about

### "America's Leading Automobile"

write to **FOURNIER-SEARCHMONT AUTOMOBILE CO.**

**1231 Orkney Street, Philadelphia, U. S. A.**

Agents. **JOHN WANAMAKER**, New York and Philadelphia; **H. B. SHATTUCK & SON**, Boston, Mass.; **GITHENS BROS.**, Chicago, Ills.

#### PENNSYLVANIA—Continued

**TACONY**—Jos. M. Smith, 3503 Long Shore St. S. R.

**WAYNE**—R. W. Loundis, 116 E. Lancaster Ave. S. R.

#### RHODE ISLAND

**NEWPORT**—New York Automobile Repository, "Newport Branch," Ocean House Stables. S. R. C.

**NEWPORT**—Newport Engineering Works, 359 Thames St. Telephone, 150. S. R. C.

**PROVIDENCE**—H. G. Martin & Co., 196-200 W. Exchange St. Telephone, 2346 Union. S. R. C.

**PROVIDENCE**—Amer. Cycle Mfg. Co., 15 Snow St. Telephone, 51. S. R. C.

**WESTERLY**—Albert B. Smith, Cogswell St. Telephone, 37-2. S. R. C.

**WESTERLY**—A. B. Smith. S. R. C.

#### SO. CAROLINA

**COLUMBIA**—J. E. Richard, 1526 Pickens St. Telephone, So. Bell No. 55. S. R. C.

#### VERMONT

**BRATTLEBORO**—Waverly Bros. S. R.

#### WASHINGTON

**SEATTLE**—Wm. O. Nelson, 1024 Second avenue. Tel. Main 1030. S. R.

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**MILWAUKEE**—C. G. Norton, 436 Jefferson St. Telephone, 1139. S. R.

### The Comfort and the Style of an Automobile is in its Body

EXPERT DESIGNING AND CONSTRUCTION HAVE MADE



**Frantz Bodies**

STANDARDS OF EXCELLENCE AND ELEGANCE

**THE FRANTZ BODY CO.**  
AKRON, O., U. S. A.

#### MOTOR CAR AGENCY.

A high class firm of coach builders in Scotland are open to take up an agency for a good motor car. "ENTERPRISE," care of Automobile Magazine.

## AUTOMOBILE RUNNING GEARS, SPUR COMPENSATING GEARS.

SUITABLE FOR STEAM, GAS OR ELECTRICITY

Our running gears are all equipped with our own make of self-contained spur compensating gears. No spreading of Rear Truss. Can supply the trade with Compensating Gears or Running Gears complete. Write for prices.

**Reading Automobile and Gear Company**

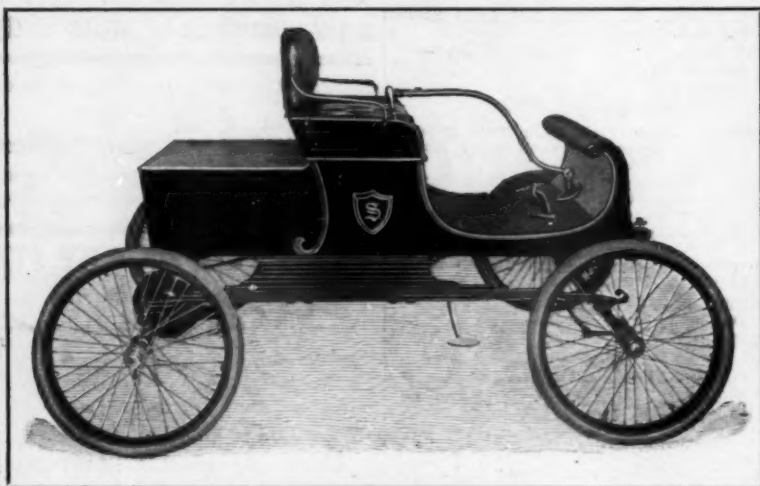
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# The Average Man

**\$650**

wants a vehicle that will carry him anywhere he wants to go and not require a skilled mechanic to keep it in order.



## The **SPAULDING** Gasoline Runabout

meets his every requirement. Starts from the seat. Runs 200 miles on one charge of gasoline and is **SIMPLE — DURABLE — ECONOMICAL.**

**Spaulding Automobile & Motor Co.**

63 Chandler St., BUFFALO, N. Y.

**NEW JERSEY AUTOMOBILE CO., Newark, N. J.**

Agents for New Jersey and New York City.

**Reliable Agents Wanted.**

**Tried,  
Tested  
and Proven.**

ADDRESS ALL CORRESPONDENCE  
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## Friedman Automobile Co.

No. 3 EAST VAN BUREN STREET,  
CHICAGO, ILL.

**17,000  
Miles of Actual  
Road Experience.**

**Price, \$750.00.**

**Hydro-Carbon.**

**Capacity, 125  
Miles.**



**6 H. P., Actual,  
Starts from  
Seat. No Gear.**

**Simplest  
Machine Ever  
Constructed.**

MANUFACTURED AT BELVIDERE, ILLS., BY THE

## NATIONAL SEWING MACHINE CO.

CAPACITY, 10 MACHINES PER DAY.

IMMEDIATE DELIVERY.

**We have done our  
own exper-  
imenting**

**AGENTS  
WANTED**

# A Modern Automobile!

## "BUFFALO, SR." Automobile



Model 7. Price, \$800.

### AGENTS

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Adapted for use of Professional Men, Business Men and Families. Equipped with **6 B. H. P. Medium Speed Gasolene Motor**; low speed 6 miles, high speed 25 miles. Strong and reliable transmission, roomy body, wide seat, long wheel base; capacity, 200 miles 1 filling.

**Vehicle Right.**

**Price Right.**

ALSO THE

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## THE NEW HENRICKS IGNITER

A SURE CURE FOR SPARKING TROUBLES. USED BY LEADING AUTO AND MARINE ENGINE BUILDERS. SUCCESSFULLY WORKS JUMP SPARK COIL.



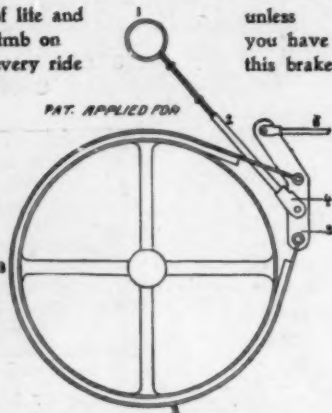
Booklet telling all about it FREE.

**HENRICKS NOVELTY CO.,**  
617-619 So. Illinois St., Indianapolis, Ind.

## You are in DANGER

of life and  
limb on  
every ride

unless  
you have  
this brake!



THIS BRAKE holds in either direction—does not bind and **WILL HOLD YOU ANYWHERE.** Better send a postal and find out more about it.

**N. J. Automobile Co.,**  
8 Central Ave., Newark, N. J.  
Agents Wanted.

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## ELECTRIC AUTOMOBILES

Flexible gear prevents destruction of battery, adds to comfort of passengers.

Power equipment of unquestioned superiority designed to give satisfaction.

Quality and not cost the primary consideration, construction and finish therefore unequalled.

No delay in filling orders. Our facilities are designed to meet large demands.

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City. Brooklyn Branch, 342 Flatbush Ave., Brooklyn, N. Y.  
Boston Branch, 225 Columbus Ave., Boston, Mass.  
Providence Branch, 15 Snow Street, Providence, R. I.  
Hartford Branch, Hartford, Conn.  
Washington Branch, 817 14th St., N.W., Washington, D. C.  
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MAKE

# Artillery Wheels For Automobiles

**One Quality—THE BEST**

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301 to 313 MARKET ST.  
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*The Best Thing on Wheels*

## The Oldsmobile

Physicians use the Oldsmobile in preference to any other because it saves time—and a Doctor's time is money. The Oldsmobile has proved itself by long, hard service to be the ideal Motor Vehicle for Physicians. It outwears a dozen horses, is always harnessed, always fed—is built to run *and does it*. All months are good months for the Oldsmobile, but the autumn months are best of all. If you want prompt delivery, order promptly. **Price \$650.00, f. o. b. Detroit.** Write for book to Department K which tells all about it.

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 Quaker City Auto. Co., 128 No. Broad St., Philadelphia.  
 H. B. Shattuck & Son, 230 Columbus Avenue, Boston.  
 Banker Bros. Co., East End, Pittsburgh.  
 Oldsmobile Co., 411 Euclid Av., Cleveland, O.  
 William E. Metzger, 254 Jefferson Av., Detroit.  
 Ralph Temple & Austrian Co., 293 Wabash Av., Chicago.  
 Fisher Automobile Co., Indianapolis.  
 Olds Gasoline Engine Works, Omaha.  
 W. C. Jaynes Auto. Co., 873 Main St., Buffalo, N. Y.  
 Day Automobile Co., St. Louis and Kansas City, Mo.  
 George Hannan, 1455 California St., Denver.  
 Clark & Hawkins, 903 Texas Av., Houston, Texas.  
 The Manufacturers Co., 26 Fremont St., San Francisco.  
 A. F. Chase & Co., 215 So. Third St., Minneapolis.  
 Oldsmobile Co., 728 National Av., Milwaukee, Wis.  
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Only whiskey recognized by the government as a medicine. An ideal and healthful tonic and stimulant. . . . .

When touring take a bottle with you. It lubricates the physical and mental man.

WRITE FOR FREE MEDICAL BOOKLET. . . . .

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## \$10.<sup>00</sup> ea. Autotire

28 x 2½ - 5 Lugs - 10½ lbs. The correct size for Locomobiles, Mobiles, Oldsmobiles, etc.



This is a thick, heavy touring tire made of tough rubber and many layers of strong, thickly woven fabric to withstand hard usage. Many now in use. An honest, good wearing tire without advertising expense added. Guarantee is insurance. We sell the tire without insurance against accident, but we guarantee every tire to be airtight and perfect in workmanship and material when shipped you. This is as good a tire as you would pay \$15.00 for elsewhere. Money refunded if tires do not come up to your expectations on receipt.

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Every requirement truly anticipated. Mechanical perfection in artistic form. A gentleman's pleasure vehicle. One control lever does the work of two on other carriages. Cost of operation cut in half; safety doubled. Water tanks filled automatically. Air and water supplied by the engine; manual effort minimized.

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Orders Immediately Filled.

INTERNATIONAL MOTOR CAR CO.  
TOLEDO, OHIO

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Brooklyn Branch, 342 Flatbush Av., Brooklyn, N. Y.  
Boston Branch, 223 Columbus Ave., Boston, Mass.  
Providence Branch, 15 Snow St., Providence, R. I.  
Hartford Branch, Hartford, Conn.  
Washington Branch, 817 14th St., N. W., Washington, D. C.

## COVERT "MOTORETTE" \$600.00



NEAT, COMFORTABLE, EFFICIENT AND EASILY OPERATED

B. V. COVERT & CO.  
LOCKPORT, N. Y.

## THE AUTOMOBILE CONSTRUCTION CO.

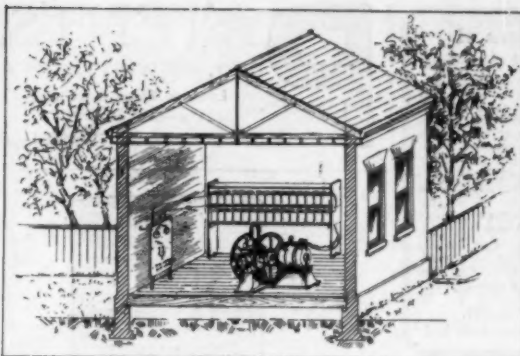
MILWAUKEE, WIS.

Recognizing the fact that many people cannot pay the high price asked for some Automobiles, we are inviting propositions to make Automobiles of any design to order on contract plan. Will construct machines from parts furnished if required. Send for photos of machines already built. *Machines built from \$350 up.* Our new Spark Coll of new and special design, listing at special low price, will be ready for the market shortly.

## THE AUTOMOBILE CONSTRUCTION CO.

MILWAUKEE, WIS.

HERMAN C. MUELLER, Manager.



## STORAGE STATIONS EQUIPPED

### AUTOMOBILISTS, ATTENTION!

We install handsome little charging plants for those who desire to do their own charging. Our charging sets are reliable, safe and fully guaranteed. Write for leaflet.

**Campion & Jantzen,**

267 West 39th Street  
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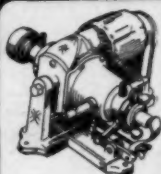
When ordering your  
new machine spec-  
ify Clark Tires.

Easily Repaired.  
Cannot Rim Cut.  
Write for Catalogue.

**CLARK TIRES**

A DETACHABLE  
TIRE THAT FITS ANY  
CRESCENT RIM

CLARK TIRE CO.  
CHICAGO.  
LAKESIDE BLDG.



To Owners of  
Gas and Gasoline  
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Do away entirely with  
all starting and run-  
ning batteries and their  
constant trouble and ex-  
pense by using instead an

### Auto-Sparker.

No belt—no switch—no batteries. Can be at-  
tached to any engine now using batteries.  
Fully guaranteed and costs less than 50 cents  
per year to operate. Write for descriptive  
booklet and testimonials.

MOTSINGER DEVICE MFG. CO.

38 Main Street,

Pendleton, Ind.

GET OUR CATALOGUE OF SUPPLIES.

Caps, \$1.50 and 3.00.

Spark Plugs, \$1.75, 2.50, 2.75,  
and 3.00.

Coils from \$5.50 to 36.00.

French Horns, \$3.50 and 3.00.

Auto Gongs, \$3.00 to 4.00.

EVERYTHING TO BUILD STEAM  
OR GASOLINE VEHICLES.

**THE P. J. DASEY CO.,**

19 and 21 La Salle St., Chicago, Ill.



Wonderful Results with  
**MOSLER  
Spit Fire Plug**

Pat. April, 1902.

Protected Porcelain and  
Sparking Points. Special  
Nickel Rod with Screw Ad-  
justment. No Platinum to  
bend, none to break.

Reversible Porcelain  
Double Life,  
Complete, \$2.50  
Extra Porcelain, 24c.

Any Standard French and  
American Threads.  
AGENTS WANTED.

**A. R. MOSLER**  
309 Broadway, New York

**SUBSCRIBE  
NOW . . . .**

FOR THE

**AUTOMOBILE  
MAGAZINE**

**PATENTS.**  
**GEO. P. WHITTLESEY,**  
Loan & Trust Building,  
Washington, D. C.  
*Terms reasonable. Pamphlet sent*



**Dixon's  
Graphites  
for  
Automobiles.**

We would like to send you  
samples and our pamphlet.  
You will be surprised to know  
the results that come from the  
use of properly prepared graph-  
ite in the way of increased  
speed and ease in running.

It will cost you not over two  
cents to make the inquiry, and  
you may be saved many dol-  
lars.

**Joseph Dixon Crucible Co.**  
JERSEY CITY, N. J.

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Telephone Call, 289 W'msburgh

### EDWARD K. BLAISDELL

Main Office and Depot: 111 and 113 Kent Avenue

Brooklyn, N. Y., Aug. 5th, 1902

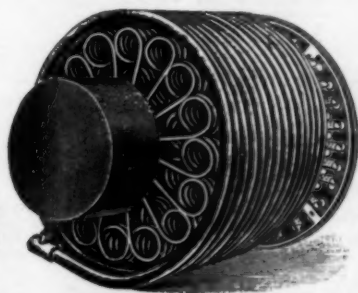
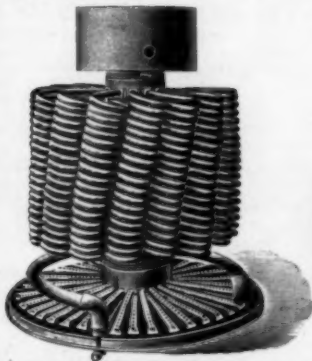
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Gentlemen:—I wish to say that the ten horse power boiler that I have in my machine is the *best thing* that I have run up against as yet and have got to meet the machine that can *pass me* on the road for *one mile or thirty*.

If the boiler had been of the common variety *it would have been burned out a hundred times or more*, but shows no weakness as yet, and don't think that it will. I have no trouble to *hold the steam* at 250 lbs., at any time, *up-hill or down*, and will be pleased to have any of your representatives call and see what the machine will do.

Very truly yours

(Signed) EDWARD K. BLAISDELL



## THIS IS THE "RIG THAT RUNS"



Everybody Knows It Now

They watched B 34 in the  
Endurance Run

NEVER MISSED A CONTROL  
NO MECHANICS  
NO HELPERS  
NOTHING SPECIAL

*Went in right cut of stock and went through on its merits, with a load of three passengers instead of two as intended.*

One of the best carriages at any price and undoubtedly the best value on the market.

Catalogs Free

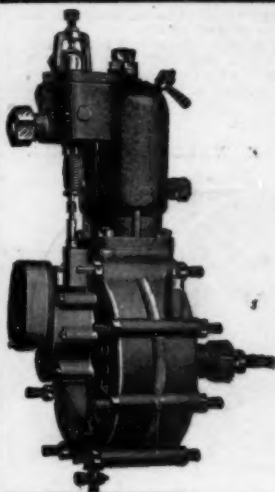
## St. Louis Motor Carriage Co.

1120 Vandeventer Avenue, St. Louis, Mo.

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# KELECOM MOTORS and THE AUTOLYTE



ARE THE BEST ROAD HELPERS  
**Good Motors and Lamps**  
ARE AMONG THE VERY ESSENTIAL  
REQUISITES IN AUTOMOBILING

**WE HAVE BOTH OF THEM**

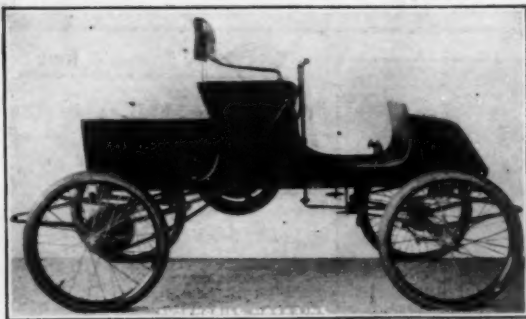
The Famous Kelecom Motor,  $1\frac{1}{2}$  to 11 H. P. Used very largely abroad and is the most famous motor importation for Automobiles and Bicycles. A 5 H. P. Kelecom Motor in an 822 pound carriage with two passengers finished ahead without a single stop in the 100 mile Long Island Endurance Test, using only three and one half gallons of gasoline.

The Autolyte Acetylene Automobile Headlight. Four styles, all beauties. Our French model motor, very Frenchy, with American improvements, is the real Parisian article. I have a specially made lamp for Oldsmobiles. Headlights for racing and heavy machines with side lights in stock. Send for Illustrated Catalogue. Agents wanted.

**A. H. FUNKE** 98 Duane St.  
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Sole Importer of Kelecom Motors  
and Autolyte Lamp Maker

## Rambler Automobiles



**"DOES ALL  
EXCEPT SWIM."**

The Cedar Rapids Supply Company, of Cedar Rapids, Iowa, write us under date of June 28th as follows: "Mr. H. A. Smith (purchaser of the last machine we sold) and myself drove a machine to Manchester, a distance of 45 miles each way, over very bad roads—in fact almost impassable—and I consider it a very crucial test of the machine. The carriage did everything we could ask of it, except swim, to do which we gave it an opportunity."

J. C. PICKERING, President.

Every part save the body and tires constructed in our own factory; supervision of every detail and the closest inspection and test of the completed carriage, supply the reason for its marvellous efficiency. Price \$250, F. O. B. Kenosha, Wis. "What Others Think" and Catalogue A-M mailed free on request.

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W. C. Greene, Watertown, N. Y.  
H. J. Koehler Sporting Goods Co., Newark, N. J.  
W. C. Koller Carriage Co., Washington, D. C.  
W. H. Weber, Detroit, Mich.  
Cincinnati Automobile Co., Cincinnati, O.  
H. T. Hearsey Vehicle Co., Indianapolis, Ind.  
Halsey Automobile Co., St. Louis, Mo.  
Joy Brothers, St. Paul, Minn.  
E. R. Cumbe, Denver, Col.  
John Dorsch & Sons, Milwaukee, Wis.  
Henry C. Squires & Son, New York.

H. B. Shattuck & Son, Boston, Mass.  
Wells Automobile Co., Philadelphia, Pa.  
Seely Mfg. Co., Pittsburg, Pa.  
F. M. Wixson & Co., Elmira, N. Y.  
Oscar S. Lear, Columbus, O.  
Cleveland Auto & Supply Co., Cleveland, O.  
E. P. Moriarty & Co., Kansas City, Mo.  
Great Western Cycle Co., Minneapolis, Minn.  
W. K. Cowan, Los Angeles, Cal.  
Cedar Rapids Supply Co., Cedar Rapids, Iowa.  
Canada Cycle & Motor Co., Toronto, Canada.

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# The Automobile Magazine

VOL. IV No. 10

OCTOBER, 1902

PRICE 25 CENTS

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INTERNATIONAL NEWS COMPANY

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LONDON, E. C.

STEPHEN STRASSE, No. 18  
LEIPSIK

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12s. 4d. Sterling

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A TIMELY BOOK

**SELF-PROPELLED VEHICLES**

(J. E. Homans, A. M.)

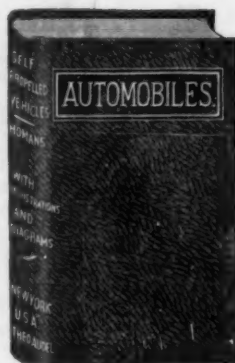
*(A Complete Practical Handbook on the Automobile)*

Containing full explanations, in plain language, on the theory, practice, operation, care and successful management of all types, Steam, Gasoline and Electric Vehicles.

A valuable treatise for Owners, Operators, Repairmen, Manufacturers, and all interested in Automobiles. Contains 640 pages, 500 illustrations and diagrams, size 6x8 $\frac{3}{4}$ ; handsomely bound. Complete list of contents and sample pages sent free on request.

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BOOK OF 140 PAGES

**A Manual That Tells What a Gas or Gasoline Engine Is. . .**

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First Edition exhausted within nine months from issue.

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Second Edition. Revised and Enlarged.  
With 156 Illustrations. Cloth \$2.70,  
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BY

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This work is now regarded as a standard one on the subject, and describes and illustrates by photographs and drawings all the leading types of English, American and Continental High-Speed Steam Engines. This edition includes chapters on the Engines exhibited at the recent Paris and Glasgow Exhibitions respectively.

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Write to

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**The Study of Steam**

its creation and its application as a motive power can best be accomplished by reading

**Railway and Locomotive Engineering**

PUBLISHED AT 174 BROADWAY, NEW YORK, N. Y.

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When you see the BAKER ELECTRIC, you see the best made, most efficient and finest finished Electric Automobile in the country. We manufacture Stanhopes with Victoria or open top for ladies' driving or physicians' use, and two styles of Runabouts that have no equal. Send for Catalog.

*The* **BAKER MOTOR  
VEHICLE COMPANY**  
CLEVELAND, OHIO

**WANT  
TO  
SELL  
YOUR  
VEHICLE**

**?**

IF SO, ADVERTISE  
IT IN

**AUTOMOBILE MAGAZINE**

1 MAIDEN LANE, - - NEW YORK

## **New York Automobile Repository**

143 WEST 51st STREET,  
NEW YORK CITY.

WE ARE PREPARED TO GIVE INSTRUCTION IN THE PRACTICAL MANAGEMENT OF MOTOR VEHICLES.

LADIES DESIRING TO LEARN CAN FIND HERE SUITABLE AND FAVORABLE FACILITIES.

MR. ISAAC JOHNSON, WHO WILL BE REMEMBERED BY MANY FASHIONABLE PEOPLE AS THEIR FORMER POPULAR BICYCLE INSTRUCTOR, WILL GIVE THIS DEPARTMENT HIS ATTENTION.

THE MOST TIMID WITH HIS ASSISTANCE CAN EASILY LEARN AND QUICKLY ACQUIRE CONFIDENCE.

ONLY THE BEST PATRONAGE IS DESIRED.

E. B. BLAKELY,  
Manager.

Telephone, 1601 Columbus.

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For Business and Pleasure

ENGINES, GEARS,  
MUFFLERS, ETC.  
DESBERON \$1.50  
PLUGS, - 1 -

**Desberon Motor-Car Co.**

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SPECIALISTS IN

## Automobile Photography

FLUSHING, N. Y.

### THE CONSTRUCTION OF A GASOLINE MOTOR VEHICLE. \*\*\*

By C. C. BRAMWELL.

Best book we know of  
on the subject. Plain  
and practical. Gives  
directions for building  
the whole vehicle from  
motor to running gear.  
You want one. \$2.00.

AUTOMOBILE MAGAZINE  
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## R·I·P·A·N·S

There is scarcely any condition of ill-health that is not benefited by the occasional use of R·I·P·A·N·S Tablets. For sale by Druggists. The Five-Cent packet is enough for an ordinary occasion. The family bottle, 60 cents, contains a supply for a year.

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USED BY THE LEADERS

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This rather startling innovation is fully set forth in our prospectus, which will be sent on receipt of three 2-cent stamps.

American College of Applied Arts  
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## THE HOWARD SYSTEM

Indispensable for Starting Fire  
ON STEAM AUTOMOBILES

No preliminary heating; starts a gasoline burner instantaneously with a match, like a gas burner. Safe, quick and clean. A postal card will tell you all about it.

J. F. HATHAWAY,  
31 Chester Street, W. Somerville, Mass.

## MACHINE WORK

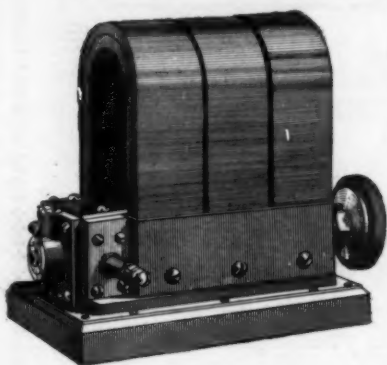
Have your Models of Engines, etc., made and small MACHINE WORK done in a thoroughly equipped machine shop. Estimates cheerfully given. Rates 80 cents per hour.

H. BARTOL BRAZIER, Engineer and Machinist  
Manufacturer of Gasoline Vehicles,  
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## THE NEW HENRICKS IGNITER

A SURE CURE FOR SPARKING  
TROUBLES. USED BY LEADING  
AUTO AND MARINE ENGINE  
BUILDERS. SUCCESSFULLY  
WORKS JUMP SPARK COIL.



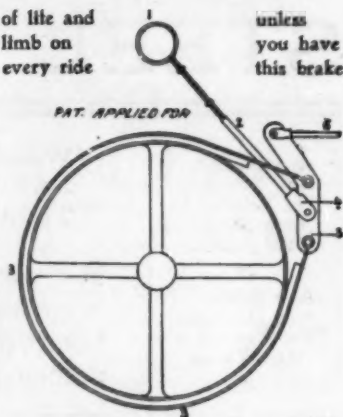
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617-619 So. Illinois St., Indianapolis, Ind.

## You are in DANGER

of life and  
limb on  
every ride

unless  
you have  
this brake!



THIS BRAKE holds in either direction—  
does not bind and WILL HOLD YOU  
ANYWHERE. Better send a postal and  
find out more about it.

**N. J. Automobile Co.,**  
8 Central Ave., Newark, N. J.  
Agents Wanted.

# Waverley

## ELECTRIC AUTOMOBILES

Flexible gear prevents destruction of battery,  
adds to comfort of passengers.

Power equipment of unquestioned superiority  
designed to give satisfaction.

Quality and not cost the primary consideration,  
construction and finish therefore unequalled.

No delay in filling orders. Our facilities are  
designed to meet large demands.

**International Motor Car Co.**

Waverley Department,  
Indianapolis, - Ind.

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New York Branch, 91 Fifth Ave., N. Y.  
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15 Snow Street, Provi-  
dence, R. I. Hartford  
Branch, Hartford, Conn.  
Washington Branch,  
817 14th St.,  
N. W., Wash-  
ington, D. C.  
Phila., Pa.,  
909 Arch St.



**PHINEAS JONES  
& CO.**

MAKE

## Artillery Wheels For Automobiles

**One Quality—THE BEST**

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NEWARK, N. J.**

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# WIRE WHEELS. STEEL RIMS.

Any Section.  
Any Diameter.  
For Vehicles  
from 300 to  
2500 pounds.

Any Section.  
Any Diameter.  
For Wood or  
Wire Wheels.

Steering Knuckles  
To Fit.

WE ARE THE OLDEST AND  
LARGEST COMPANY IN  
THIS LINE.

We want your business. : : : :  
We make one hundred to your one.  
For this reason we can save you  
money and give you better goods.

Send us your Specifications.

Weston-Mott Co., Utica, N. Y.

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Steel Castings, 25 pounds and under.

Estimates given on not less than 100 from each pattern.

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AND FOUNDRY CO.

170 Broadway

NEW YORK



Roll Top Cabinet

**BOWSER CABINETS**

Keep oils free from dust and dirt and prevent all loss from waste and leakage.

**A Dozen Different Styles**  
Catalogue "G. G." Explains Fully.

YOUR  
**Automobile Stable**

IS  
**NOT FULLY EQUIPPED**

Until You Have Installed

**THE BOWSER ADJUSTABLE  
MEASURE OIL CABINET**

for the storing and handling of your

**COSTLY LUBRICATING OILS**

No waste of oil or time.  
No use of measures or funnels.  
No dirty, oil-soaked floors.  
No use for cotton 'waste' and so  
No danger of fire.

“OIL” R  
FILLED  
AT ONE  
STROKE

HENCE IT IS

**ECONOMICAL, CONVENIENT, CLEAN,  
SATISFACTORY**

Pumps accurate Quarts, Pints and Half Pints or  
Pints, Half Pints and Quarter Pints.

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## Duffy's Pure Malt Whiskey



Only whiskey  
recognized by  
the govern-  
ment as a med-  
icine. An ideal  
and healthful  
tonic and stim-  
ulant. . . . .

When touring  
take a bottle  
with you. It  
lubricates the  
physical and  
mental man.

WRITE FOR  
FREE MEDICAL  
BOOKLET. . . . .

**Duffy Malt  
Whiskey  
Company  
ROCHESTER, N. Y.**

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TIRE TROUBLES VANISH  
WHEN YOU USE ♣ ♣ ♣

## "WHALEBONE" TIRES.

### WHY? BECAUSE

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| 1st. They are puncture proof.  | 6th. They are more graceful in design and outline than any other tire, and give an unequalled finish to the wheel. |
| 2nd. They last twice as long as any other tire made.   | 7th. They maintain, under all loads, the same tread surface.   |
| 3rd. They are capable of carrying double the air pressure of any other tire without increasing their diameter. | 8th. The valves remain tight, as the column of air in the tire is less disturbed.                                  |
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| 5th. Being reinforced on the upper side they are never cut by the rim.   |  |

## American Rubber Works Co.,

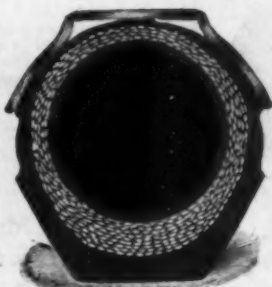
Successors to NEW BRUNSWICK RUBBER CO.

Manufacturers of High-Grade AUTO and CARRIAGE TIRES of all descriptions.

NEW YORK REPRESENTATIVE  
Room 1303—

277 BROADWAY, NEW YORK.

Factory—NEW BRUNSWICK, N. J.



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Send for  
Circular  
giving  
details of our  
Patent  
Stay Thread  
Fabric, also  
Testimonials,  
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DEFLATED

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**SAVE MONEY, TIME, WORRY**

For a comparatively small premium we will protect you against loss from liability on account of accidents to any person or persons by means of the Automobiles in your service.

***Do not wait until you have a serious accident.  
Insure now!***

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HARTFORD, CONN.

ASSETS	LIABILITIES	SURPLUS
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### THE LARGEST COMPANY IN THE WORLD

transacting all kinds of Accident and Liability Insurance

*FOR RATES: APPLY, GIVING FULL DESCRIPTION OF YOUR AUTOMOBILE, TO OUR NEAREST AGENCY, OR DIRECT TO ÆTNA LIFE INSURANCE CO. ACCIDENT & LIABILITY DEPARTMENT, DRAWER 35, HARTFORD, CONN.*

**Good testimonial letters from good people are good things even when solicited, but when they come like the one below, unsolicited and unexpected, their value is increased manifold. The engine in question has been in use nine years.**

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GENTLEMEN:—I would like your catalogue of "Marine Engines," boats, etc. I have one of your stationary engines and am much pleased with it. I bought it contrary to the advice of several friends, but I thought that as the OTTO people have been making gas engines longer than anybody and were still in the business, the engine *must* be the "real thing." I have had no occasion to change my mind or regret my purchase, but on the other hand have converted some unbelievers.

We are thinking of buying a marine motor and would like to investigate your make of same.

Yours truly,

[Signed], W. B. SULLINS,

Ass't Cashier, Mechanics National Bank

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PHILADELPHIA, PA.

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AUTOMOBILE OVERCOATS, MOTOR SUITS,  
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GOGGLES, GLOVES, Etc., Etc.

CHAUFFEURS' LIVERIES IN LEATHERS,  
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SAN FRANCISCO—Durham, Carrigan & Hayden, 17 Bearle St.

#### COLORADO

DENVER—Felker Cycle Co., 1533-39 Tremont St. Telephone, Main 2160. S. R.  
DENVER—Geo. W. Hannan Auto. Agency. S. R. C.

#### CONNECTICUT

BRANFORD—J. C. Barnes. S. R.  
BRIDGEPORT—Automobile Station of Bridgeport, 148 Cannon St. Telephone, 1054-2. S. R. C.  
FORESTVILLE—F. N. Manross, N. Center St. Telephone, 33-3. S. R.  
GREENWICH—C. H. Minchin & Co., 157 Greenwich Ave. Telephone, 106B. S. R. C.  
GUILFORD—E. N. Butler, S. Public Sq. Telephone, 9-3. S.  
HARTFORD—Brown & Thompson, Main St. Telephone. R. C.  
HARTFORD—Hartford Automobile Station, 43 Wells St. Telephone, 165. S. R. C.  
HARTFORD—Post & Lester Co. S. R. C.  
NEW HAVEN—Campbell Cycle & Motor Co., Broadway and York. Telephone, 1317-12. S. R.

NEW HAVEN—H. C. Holcomb, 105 Goffe St. Telephone, 416-3. S. R.  
NORWALK—F. E. Lockwood, 39 Wall St. S. R. C.

#### DELAWARE

NEWARK—H. B. Wright Co. Telephone, 22 Delmonia. S. R. C.  
SMYRNA—Alfred Tilghman, cor. Commerce and Del. Sts. S. R.

#### GEORGIA

SAVANNAH—R. V. Conuroat, 246-48 Bull St. Telephone, 650 Bell & Ga. S. R.

#### ILLINOIS

CHICAGO—A. C. Banker Auto. Co., 35th St. and Grand Blvd., and 17 Plymouth St. Telephone, So. 914. S. R. C.  
CHICAGO—Ralph Temple, 293-95 Wabash Ave. Telephone, Harrison 2333. S. R. C.  
CHICAGO—Hagmann & Hammerly, 931 Van Buren St. Telephone, West 252. S. R.  
CHICAGO—Electric Vehicle Co., 267 Wabash Ave. S. R. C.  
CHICAGO—Githins Bros., 1312-14 Michigan Ave. Telephone, So. 1658. S. R. C.  
CHICAGO—Pardee & Co., 1404-6 Michigan Blvd. Tel. Calumet 2523. S. R. C.  
PEORIA—The Bartholomew Co. 111-121 Peoria street. S. R.

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FORT WAYNE—Brosino & Brosino. S. R.

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USING THE UNQUESTIONABLY SUPERIOR SYSTEM OF  
AIR COOLING FOR WINTER AS WELL AS SUMMER

Our well known high-class workmanship, durable construction, simple method of operation and low cost make the Crestmobile the admitted greatest value for the money and the most popular runabout of 1902.

Made by the CREST MFG. CO., Cambridge, Mass.

ALSO LARGE MANUFACTURERS AND DEALERS IN THE WELL KNOWN CREST GASOLINE MOTORS, COILS AND AUTOMOBILE ACCESSORIES

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ELECTRIC—GASOLINE

Seventh  
Year  
Of  
Success



Vehicles  
For  
All  
Requirements

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Delivery Wagons  
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Surreys  
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Trucks

Write for Our New 24-Page Catalogue

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New York, 100 Broadway    Boston, 43 Columbus Ave.    Chicago, 1421 Michigan Ave.



The tires on an automobile either increase or retard its speed. Resilient tires give additional power and greater mileage.

## G & J TIRES

have been proven the speediest of all vehicle tires, and they wear longest. Descriptive catalog and full information on request.

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It is very foolish to spend much money on ignition when the most reliable can be obtained for little money. We have interesting printed matter on this subject and will be glad to send you full details of the Apple Economical Igniting outfits for either touch or jump spark. We manufacture everything in the ignition line for automobile, marine or stationary engines.



**The Dayton Electrical  
Mfg. Co.**

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THIS IS OUR NEW MODEL F.

Are built for those to whom tried out efficiency is the first requisite. Past achievements speak for themselves.

Brought strictly up-to-date and are the acme of simplicity and reliability. We make no attempt to compete on price. If you are interested in this kind of a carriage, write us, or better

Ask the man who owns one.

## Ohio Automobile Co., WARREN, OHIO.

Eastern Department, Adams, McMurtry Company, 114 Fifth Avenue, New York.

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INDIANAPOLIS—Fisher Auto. Co. Telephone, 3545. S. R. C.  
INDIANAPOLIS—H. T. Hearsey, 34-36 Monument Pl. S. R. C.  
INDIANAPOLIS—Auto. Storage & Repair Co., 23 E. Ohio St.  
INDIANAPOLIS—Sullivan & Merz, 25 E. Ohio street. Tel. 2776. S. R. C.  
KOKOMO—Apperson Bros. Tel. 15. S. R. C.  
MUNCIE—C. S. Wachtell Son & Co. S. R. C.  
SOUTH BEND—M. A. Shuey, 110 W. Wayne street. S. R. C.  
TERRE HAUTE—R. Chaney & Bro. Tel. 7522 Main. S. R.

### KENTUCKY

LOUISVILLE—Prince Wells, 632 Fourth Ave. S. R. C.

### LONG ISLAND

AMITYVILLE—C. Dittman, Park Ave. S. R. C.  
BABYLON—H. B. Smith, Main St. S. R.  
BROOKLYN—Lewis Automobile Co., 458 Hancock St. Telephone, 1005 Bedford. S. R.  
BROOKLYN—Alex. E. Pastre, 519 Sixth Ave. Telephone, 464F South. S. R. C.  
BROOKLYN—Brooklyn Automobile Co., 1239 Fulton St. Telephone, 705 Bedford Branch. S. R. C.  
BROOKLYN—Champion Automobile Co., 63 Montague St. Telephone, 1868 Main. S. R.  
BROOKLYN—International Motor Car Co., 342-344 Flatbush Ave. Telephone, 1681 Main. S. R. C.  
BROOKLYN—J. W. Mears, 754 Bedford Ave. Telephone, 2356. S. R. C.  
BROOKLYN—F. Lauterbach, Flatbush and Ocean Aves. Telephone, 4261 Flatbush. S. R. C.

BROOKLYN—Patterson & Shaw, 58 Schermerhorn St. Telephone, 3710 Main. S. R. C.  
BROOKLYN—Prospect Park Storage Co., 3 Prospect Park West. Telephone, 949 Prospect. S. R. C.  
BROOKLYN—Alex Schwalbach, 473 Flatbush Ave. S. R.  
BROOKLYN—L. I. Motor Co., 32 Hanson Pl. Telephone, 3750 Main. S. R. C.  
BROOKLYN—Ladd, C. W., 1255 Bedford Ave. R.  
BROOKLYN—Maltby, Frank D., 10 Clinton St. Telephone, 1225 Main. S. R. C.  
BROOKLYN—Ray, F. B., 1231 Fulton St. Telephone, 2374 Bedford. S. R. C.  
BROOKLYN—Sterling Automobile & Motor Cycle Co., 1104 Fulton St. Telephone, 811 Bedford. S. R.  
BROOKLYN—Townsend, Arthur F., 1148 Bedford Ave. Tel., 853-B Bedford. S. R. C.  
FAR ROCKAWAY—D. S. Starks. Telephone, 11-A. S. R.  
FLUSHING—Nicks Auto Depot, 81 Grove St. Telephone, 233-a Flushing. S. R. C.  
GARDEN CITY—August Porrier, Franklin St. Telephone, 42-A. Charge.  
GLEN COVE, L. I.—J. S. Patrick. S. R. C.  
HUNTINGTON—Arthur & Flessel, 53 Main St. E. R.  
LONG ISLAND—Graphic Cycle Co., W. Hampton Beach and Quogue. Telephone, 2B W. Hampton. S. R.  
ROCKVILLE CENTER—Chas. E. Edwards. S. R.  
SOUTHAMPTON, L. I.—J. S. Allen. Tel. 43-1. S. R.

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BALTIMORE—O. L. Gooden, 1118 Cathedral St. Telephone, B. 1121. C. & P. 1199-A.  
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### Specialties

**Tonkin Dry Plate Boilers  
Tonkin Water Tube Boilers  
Heavy Truck Boilers  
Perfect Kerosene Burners**

.....Write for Catalogue and Prices.....

**TONKIN BOILER COMPANY, Oswego, N. Y.**

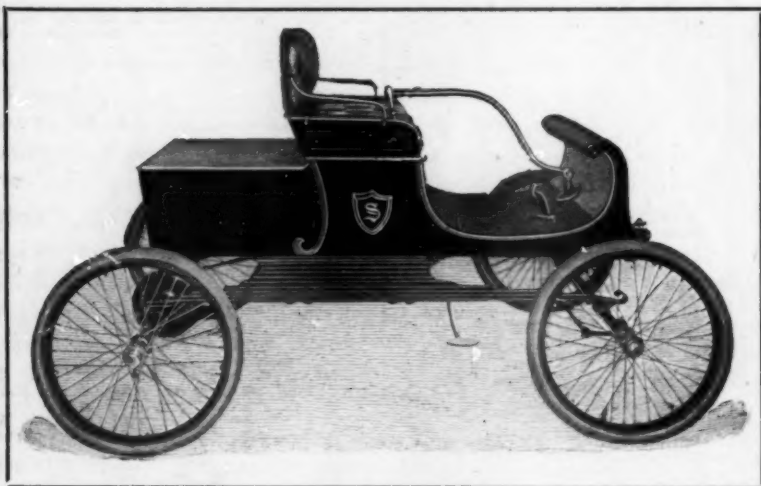
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# The Average Man

**\$650**

wants a vehicle that will carry him anywhere he wants to go and not require a skilled mechanic to keep it in order.



## The SPAULDING Gasoline Runabout

meets his every requirement. Starts from the seat. Runs 200 miles on one charge of gasoline and is **SIMPLE — DURABLE — ECONOMICAL.**

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Agents for New Jersey and New York City.

**Reliable Agents Wanted.**



# Beauty Strength Quality Workmanship

Is found in our Reachless Gear. Five styles for 600 to 3,000 pound vehicles. We will not compete against cheap goods which are in the long run costly to purchasers. ... We furnish our Duplex and Compound Engines and guarantee them. Complete vehicles, less power, also made

Prompt Shipments.

Send for Particulars.

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BOSTON—Columbus Automobile Exchange, 147 Columbus Ave. S. R. C.  
BOSTON—Winton Motor Carriage Co., 41 Stanhope St. S. R.  
BOSTON—Winton Motor Carriage Co., 41 Stanhope St. Telephone, 776 Columbus. R. S.  
BOSTON—Columbus Automobile Exchange, 147 Columbus Ave. Telephone, 383-2 Tremont. S. R.  
BOSTON—Automobile Headquarters, 66 Stanhope St. Telephone, 842-2 Tremont. S. R. C.  
BOSTON—Park Square Auto. Station No. 1, 43 Columbus Ave. Telephone, Tremont 616. S. R. C.  
BOSTON—H. B. Shattuck & Son, 229 Columbus Ave. S. R. C.  
CAMBRIDGE—Harvard Auto. Co., 8-10 Palmer St. Telephone, 72-2 Camb. S. R. C.  
CANTON—J. E. Kelley. S. R. C.  
CLINTON—Clinton Mch. Works, 460 High St. Telephone, 153-5. S. R.  
CONCORD—John McKuyer. Telephone, 14-5. S. R. C.  
CONCORD—John M. Keyes, Monument St. Telephone, 41-6 and 14-5. S. R. C.  
DORCHESTER—Barden Cycle Co., 232 Adams St. S. R.  
DORCHESTER—Franklin Cycle Co., Central Sq. S. R. C.  
HUDSON—F. D. Knight & Son, 49 Church St. R.  
MARLBORO—Marlboro Auto & Car Co. Telephone, 9154-13. S. R.  
MEDFORD—F. H. Greaney, 60 Park St.; 439 High St., W. Medford. Telephone, 27-3 Medford. S. R. C.

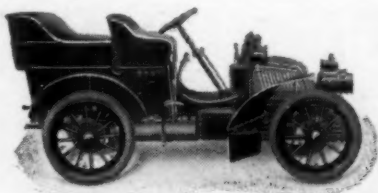
NEWTONVILLE—Fred J. Read, 821 Washington St. Telephone, 326-3. S. R.  
NEWTON HIGHLANDS—Woodworth Bros., 2 Hartford St. Telephone, 153-3. S. R.  
NO. ATTLEBORO—John P. Ballou, 175 Washington St. S. R. C.  
PLYMOUTH—G. E. Rounds. Telephone, 205-3. S. R. C.  
ROXBURY—Wilson Ourish, 470 Blue Hill Ave. Grove Hill. Telephone, Rox. 55. S. R. C.  
SO. FRAMINGHAM—Chas. F. Whyte, 17 & 19 Irving St. R.  
SPRINGFIELD—Headquarters, 36 Dwight St. Telephone, 1130. S. R. C.  
SPRINGFIELD—Nat. Auto. Supply Co., 226 Worthington St. Telephone, 819-3. S. R.  
SPRINGFIELD—Springfield Auto. Co., 60 Main St. Telephone, 853-4. S. R. C.  
STOUGHTON—James Lehan, Lehan's Bldg. Telephone, 38-4 and 38-7. S. R. C.  
WALTHAM—Harvard Auto Corporation. S. R.  
WESTFIELD—Loomis Automobile Co. S. R. C.  
WORCESTER—Worcester Automobile Co., 20 Exchange St. Telephone, 1444. S. R. C.  
WORCESTER—Worcester Automobile Station No. 1, 43 Foster St. Telephone, 659-4. S. R.  
WORCESTER—Birney A. Robinson, 671 Main St. Telephone, 1550. S. R. C.

## MICHIGAN

GRAND RAPIDS—Louis C. Howard, 35 N. Division St. Telephone, 2195 City. S. R. C.  
MUSKEGON—Dr. C. J. Dove. S. R. C.  
MENOMINEE—D. P. Poyer, 518 Main St. Telephone, 126. S. R. C.

## MINNESOTA

MINNEAPOLIS—Great Western Cycle Co., 601 First Ave. Telephone, 1929 Main. S. R. C.



16 H. P., with Detachable Tonneau.

## The Peerless Motor Car

**BUILT IN AMERICA  
FOR AMERICAN ROADS**

Thoroughly Satisfactory, Comfortable, Elegant, Impressive.  
Low Center of Gravity with ample road clearance.  
Long Wheel Base with Even Distribution of Weight.  
Vertical Motors in front, Reliable and Accessible.  
Genuine De Dion Spark Plugs and Batteries.

## THE PEERLESS MANUFACTURING CO., Cleveland, Ohio.

AGENTS:—NEW YORK CITY—Banker Bros. Co., 250 West 80th Street. PITTSBURG—Banker Bros. Co., Baum and Beatty Sts., East End, for Pennsylvania. PHILADELPHIA—Banker Bros. Co., Broad and Vine Streets. DETROIT—J. P. Schneider, 187-189 Jefferson Ave., near Woodward. BUFFALO—Ellicott Evans, 84 White Bldg. TORONTO—Canada Cycle and Motor Company, Ltd., 34 King Street, West, for the Dominion of Canada. BOSTON—F. E. Randall, 245 Columbus Ave., for New England. TOLEDO—Wilson & Co., 811 Jefferson Avenue.

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The Only Automobile that has won Every Endurance Contest held in America is the

# HAYNES- APPERSON

## HAYNES-APPERSON

THE MOST PRACTICAL  
AUTOMOBILE IN THE WORLD

Runabout, 6 h. p., 2 passengers, \$1,200
Phaeton, 9 " 2 " 1,500
Surrey, 9 " 4 " 1,800

We offer you a proved reliability, ease of access to working parts and simplicity of operation that no other make in the world affords, at reasonable prices for good workmanship. Look up our records, ask our customers, get our free booklets.

**HAYNES - APPERSON CO.**  
KOKOMO, INDIANA.

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ST. LOUIS—R. J. Leacock Supply Co., 711 Pine St. S. R. C.  
KANSAS CITY—Day Auto. Co., 1407 So. 12th St. Telephone, 1742 Main. S. R.  
ST. LOUIS—Halsey Auto. Co., 4259-65 Olive St. "Both 'Phones." S. R. C.  
ST. LOUIS—Day Auto. Co., 1010 Olive St. Telephone, Bell, Main 1310. S. R.

### NEW JERSEY

ASBURY PARK—C. R. Zacharias, 725 Mattison Ave. Telephone, 40F. S. R. C.  
ATLANTIC CITY—Arthur Boyce, 1735 Atlantic Ave. Telephone, 113-F and 766-F. S. R.  
BERLIN—Townsend Dowd. Telephone, 8X.  
HIGHTSTOWN—Jacob R. Elwell. R.  
BURLINGTON—Gray Mfg. Co., 1116 Main St. S. R.  
EAST ORANGE—John M. Schmidt, 22 Railroad Pl. Telephone, 1504 E. O. S. R. C.  
EGG HARBOR—Jacob Wimberg. Telephone, Bell. S. R. C.  
HACKENSACK—Davison Eng. Co., Main and Bridge Sts. Telephone, 175-I. S. R. C.  
HACKENSACK—Wood & Bedly, 311 and 313 Main St. S. R. C.  
HACKETTSTOWN—M. S. Neighbor, Hope St. (King Bldg.). S. R. C.  
HOBOKEN—Meyer, V. F., 520 Washington St. Telephone, 117-B Hoboken. S. R. C.  
JERSEY CITY—Crescent Cycle & Automobile Co., 548 Communipaw Ave. Telephone, 1232 Bergen. S. R. C.  
JERSEY CITY—D. W. Romaine, 70 Erie St. Telephone, 1559 F. S. R. C.  
JERSEY CITY—Geo. A. Smythe, 2926 Boulevard. S. R.  
LAKEWOOD—Jos. B. Hoff, Main St., foot of Lex Ave. Telephone, 125B. S. R. C.  
MORRISTOWN—Willis H. Dretton, 24 Washington St. Telephone, 173. S. R. C.

NEWARK—New Jersey Automobile Co., 8 Central Ave. Telephone, 734 Newark. S. R. C.

NEWARK—The Automobile Company, 79 Orange St. Telephone, 799. S. R. C.

NEWARK—J. W. Geissler, 46 William St. S. R. C.

NEWARK—L. Lawrence, 241 Halsey St. S. R. C.

NEWARK—Lewis J. Worth, 26-28 William St. S. R. C.

NEWARK—Koehler Sporting Goods Co., H. J., 845 Broad St. Telephone, 2864 Newark. S. R. C.

NEWARK—C. S. Calvert, 141 Halsey St. Telephone, 3714. S. R. C.

NEW BRUNSWICK—Wm. J. McDede, 63-70 Albany St. S. R. C.

NEW EGYPT—Chasey & Brown. S. R. C.

PASSAIC—Geo. De W. Brown, 271 Main Ave. Telephone, 206 B. Passaic. S. R.

PATERSON—Stockbridge, F. W., Broadway & 15th St. Telephone, 2433 Paterson. S. R. C.

RED BANK—Geo. H. Patterson, 8 Broad St. S. R. C.

RIDGEWOOD—S. B. Hagerman, Bergen Co. S. R. C.

TEABRIGHT—H. L. Zobel, Jr. Telephone, 26-B. S. R. C.

SOUTH ORANGE—W. L. Mead, 275 Ridgewood Road. G.—Repair.

SUMMIT—C. C. Henry. R.

SWEDESBORO—Chas. Hall. S. R.

VINELAND—C. W. Pearson, N. 6th St. Telephone, 35 Interstate. S. R.

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NEW YORK—Adams, McMurtry Co., 317 West 59th St. Telephone, 623 Columbus. S. R. C.

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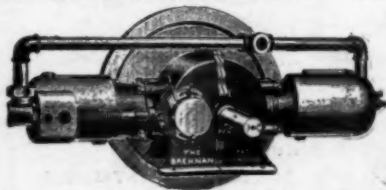
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NEW YORK—S. B. Bowman Automobile Co.,  
52 West 43d St. Telephone, 400 38th St.  
S. R. C.  
NEW YORK—Banker Bros. Co., 50 West 43d  
St. Telephone, 4138 38th St. S. R. C.  
NEW YORK—International Motor Car Co., 91  
Fifth Ave. Telephone, 1407 18th St. S.  
R. C.  
NEW YORK—Manhattan Automobile Co., 56  
West 43d St. S. R. C.  
NEW YORK—Geo. Mortensen, 150 West 38th  
St. S. R. C.  
NEW YORK—Oldsmobile Co., 40 West 60th  
St. Telephone, 2580 Columbus. S. R. C.  
NEW YORK—New York Automobile Reposi-  
tory, 143 West 51st St. Telephone, 1601  
Columbus. S. R. C.  
NEW YORK—Pa-Delford & Bell, 250 West  
80th St. Telephone, 2562 Riverside. S.  
R. C.  
NEW YORK—St. Nicholas Automobile Depot,  
55 West 60th St. Telephone, 1271 Colum-  
bus. S. R. C.  
NEW YORK—Westchester Automobile Co., 12  
East 27th St. Telephone, 192 Madison Sq.  
523 Fifth Ave. Telephone, 6029 38th St.  
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NEW YORK—W. H. Webster Automobile  
Co., 10 West 60th St. Telephone, 1874 Co-  
lumbus. S. R.  
NEW YORK—A. Elliott Ranney, 305 W.  
Fifty-ninth street. Telephone, 2060 Co-  
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NEW YORK CITY—Spalding-Bidwell Co.,  
35-40 West 43d St. Telephone, 691 38th St.  
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NEW YORK CITY—Chas. Strathmann, 175  
E. 126th St. Telephone, 1444-A Harlem.  
S. R.  
NEW YORK CITY—Smith & Mabley, 7th  
Ave. and 38th St. Telephone, 6345. 38th.  
NEW YORK CITY—"The Central," 1684  
Broadway, between 52d and 53d Sts.  
Telephone, 596 Columbus. S. R. C.

NEW YORK CITY—John Wanamaker, 140 E.  
57th St. Telephone, 1161 38th St. S. R. C.  
NEW YORK—West End Automobile Ex-  
change, 153 West 427th St. Telephone,  
3326 Harlem. S. R. C.  
NEW YORK—Geo. Mortensen, 150 West 38th  
St. Telephone, 6532 38th St. S. R.  
NEW YORK—Ajax Motor Vehicle Co., 220  
West 36th St. Telephone, 5376 38th St.  
S. R.  
NEW YORK CITY—Automobile Exchange &  
Storage Co., 133-139 West 38th St. Tele-  
phone, 5504 38th St. S. R. C.  
NEW YORK CITY—Harlem Automobile Co.,  
159-163 West 127th St. Telephone, 1459  
Harlem. S. R. C.  
NEW YORK—Knickerbocker Automobile Station,  
143 West 51st St. Telephone, 1601  
Columbus. S. R. C.  
NEW YORK—Diamond Cycle Co., 309 West  
126th St. R.  
NEW YORK—Eureka Automobile Agency,  
2285 Eighth Ave., 122d St. Telephone,  
3493 Harlem. S. R. C.  
NEW YORK—Storage Battery Supply Co.,  
239 E. 27th St. Telephone, 1065 Madison  
Sq. S. R. C.  
NEW YORK—West End Storage Warehouse,  
202-210 West 39th St. Telephone, 141 River-  
side. S. R. C.  
NEW YORK—Lewis H. Woods, 2376 Jerome  
Ave. 306 Tremont. S. R. C.  
ALBANY—F. G. Robinson, 422 Broadway  
and 97 Central Ave. S. R. C.  
BINGHAMTON—R. W. Whipple, 169 State  
St. S. R. C.  
BUFFALO—G. H. Poppenberg, 636 Main St.  
Telephone, Tupper 472. S. R. C.  
BUFFALO—Buffalo Auto. Exchange, 320  
Franklin St. Telephone, Lupper 870. S.  
R. C.  
HERKIMER—J. C. Keefe, 141 Main St. S. R.  
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NIAGARA FALLS—W. H. Davey, 221 First St. Telephone, Bell 336-X. S. R.  
ONEIDA—Oneida Rubber Tire Works, Cedar and Phelps Sts. Telephone, Bell. S. R. C.  
FOUGHKEEPSIE—John Van Benschoten, 14-20 Catherine St. Telephone, 39-A. S. R. C.  
RHINEBECK—J. Vonderlinden. S. R.  
ROCHESTER—Jos. J. Mandery, 150-170 South Ave. S. R. C.  
ROCHESTER—Rochester Auto. Co., 150-170 South Ave. Telephone, 3. S. R. C.  
SCHENECTADY—A. R. Burles & Son, 149-15 Jay St. Telephone, 202-D. S. R. C.  
SUFFERN—J. B. Campbell, Orange and Lafayette Aves. S. R. C.  
SYRACUSE—Syracuse Auto. Co., 346-348 S. Warren street. Telephone, 555. S. R. C.  
Telephone, 4138 38th street. S. R. C.  
TROY—James Lucey, 359-361 Fulton St. Telephone, 399-M. S. R. C.  
UTICA—Miller-Mundy Motor Car Co., Oneida Square. Telephone 884A. S. R. C.  
UTICA—Utica Auto. Co., W. H. Birdsall, Mgr. Telephone, 1U. S. R. C.  
WHITE PLAINS—E. P. Horton, 105 Railroad Ave. Telephone, 20 B. R.

### OHIO

CINCINNATI—Cincinnati Auto. Co., 807-809 Race St. Telephone, Main 2329. S. R. C.  
LIMA—W. E. Rudy, 125 E. Market St. Telephone, 6481. S. R.  
COLUMBUS—Avery & Davis. Telephone, 1844. S. R. C.  
COLUMBUS—Oscar S. Lear, 201 S. High St. Telephone, 739. S. R. C.  
DAYTON—Kiser & Co., 29 E. 2d St. Telephone, 1087. S. R. C.  
SPRINGFIELD—D. Vanderpool, 12 E. High street. Telephone, 10762. S. R. C.  
YOUNGSTOWN—A. E. Bown, 134 E. Federal St. Telephone, 1034. S. R.

### OKLAHOMA

EL RENO—I. F. Hensley. S. R. C.

### PENNSYLVANIA

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COLLEGEVILLE—Geo. F. Clamer, Main St., above R. R. Station. S. R.  
BETHLEHEM—Lawrence L. Beckel, 211 S. Main St. S. R.  
BRISTOL—C. R. Thompson, 611-13 Bath St. Telephone, Standard. S. R.  
EASTON—George G. Snyder, 200 S. 3d St. S. R. C.  
HARRISBURG—Kline Cycle Mfg. Co., 12 N. Mkt. Square. Telephone, 642 X. S. R. C.  
PHILADELPHIA—Banker Brothers, Broad and Vine Sts. Telephone, 1-39-11. S. R.  
PHILADELPHIA—Quaker City Automobile Co., 304 North Broad St. Telephone, 1-33-83. S. R. C.  
PHILADELPHIA—Hart Cycle & Auto. Co., 328 Arch St.  
PHILADELPHIA—Parkin & Le Fleur Motor Cycle Co., 2740 No. Broad St. S. R. C.  
PHILADELPHIA—Jno. Wanamaker, Twenty-third and Walnut streets. Tel. 1-38-65. S. R. C.  
PITTSBURGH—Banker Brothers, Baum and Beatty Sts. S. R.  
NEW CASTLE—Kirk & Smith. Telephone, Bell 13. S. R. C.  
READING—Chas. A. Miller, 33 Wood street. Tel. 138-F. S. R. C.  
READING—Duryea Power Co., River St. Telephone, 1422. S. R.  
READING—E. S. Youse, 46 N. 5th St. Telephone, 147 C. S. R.  
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Wheel Base 68 inches.

Weight 1000 lbs.

Carry 2 or 4 Passengers.

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Two Double Acting Brakes on Rear Hubs; Heavy New Design Running Gear; American Roller Bearings; Large Fuel and Water Capacity; New Indestructible Burner; Pilot Light Never Blows Out; Superheated Steam Doubles the Mileage of Water; Economy of Fuel; Encased Engine; Automatic Lubricator.

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SUITABLE FOR STEAM, GAS OR ELECTRICITY

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WAYNE—R. W. Loundis, 116 E. Lancaster Ave. S. R.

#### RHODE ISLAND

NEWPORT—New York Automobile Repository, "Newport Branch," Ocean House Stables. S. R. C.

NEWPORT—Newport Engineering Works, 359 Thames St. Telephone, 150. S. R. C.

PROVIDENCE—H. G. Martin & Co., 196-200 W. Exchange St. Telephone, 2346 Union. S. R. C.

PROVIDENCE—Amer. Cycle Mfg. Co., 15 Snow St. Telephone, 61. S. R. C.

WESTERLY—Albert B. Smith, Cogswell St. Telephone, 37-2. S. R. C.

WESTERLY—A. B. Smith. S. R. C.

#### SO. CAROLINA

COLUMBIA—J. E. Richard, 1526 Pickens St. Telephone, So. Bell No. 55. S. R. C.

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#### WASHINGTON

SEATTLE—Wm. O. Nelson, 1024 Second avenue. Tel. Main 1030. S. R.

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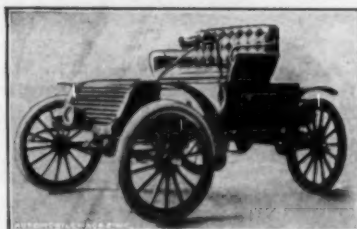
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6 H. P., Actual,  
Starts from  
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CAPACITY, 10 MACHINES PER DAY.

IMMEDIATE DELIVERY.

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The "BARRETT" JACK is  
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**\$650.00**  
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Banker Bros. Co., East End, Pittsburgh  
Oldsmobile Company, 411 Euclid Ave., Cleveland, O.  
William E. Metzger, 254 Jefferson Ave., Detroit  
Ralph Temple & Austrian Co., 293 Wabash Ave., Chicago  
Fisher Automobile Co., Indianapolis  
Rochester Automobile Co., 170 South Av., Rochester, N. Y.

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W. C. Jaynes Auto. Co., 873 Main St., Buffalo, N. Y.  
Day Automobile Co., St. Louis and Kansas City, Mo.  
George Hannan, 1435 California Street, Denver  
Clark & Hawkins, 903 Texas Ave., Houston, Texas  
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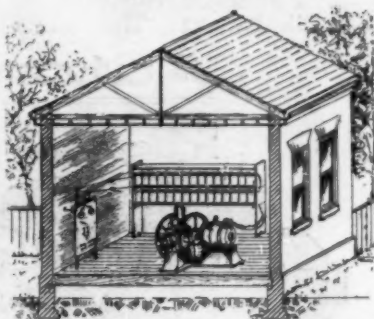
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28 x 2½—5 Lugs—10½ lbs. The correct size for Locomobiles, Mobiles, Oldsmobiles, etc.



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**Clean, Compact, and Controlled**

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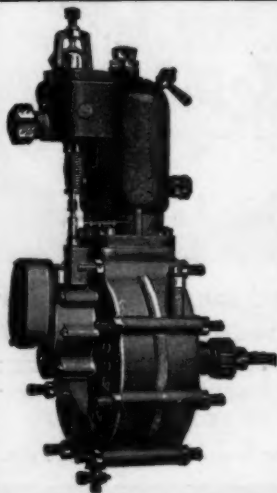
takes it from the builders. Tested on Wisconsin cross-country roads, it is equal to any task set, and will give equal service with the larger powered, high-priced motor

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**ARE THE BEST ROAD HELPERS  
Good Motors and Lamps**

ARE AMONG THE VERY ESSENTIAL  
REQUISITES IN AUTOMOBILING

**WE HAVE BOTH OF THEM**

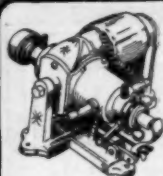
**The Famous Kelecom Motor,** 1½ to 11 H. P. Used very largely abroad and is the most famous motor importation for Automobiles and Bicycles. A 5 H. P. Kelecom Motor in an 822 pound carriage with two passengers finished ahead without a single stop in the 100 mile Long Island Endurance Test, using only three and one half gallons of gasoline.

**The Autolyte Acetylene Automobile Headlight.** Four styles, all beauties. Our French model motor, very Frenchy, with American improvements, is the real Parisian article. I have a specially made lamp for Oldsmobiles. Headlights for racing and heavy machines with side lights in stock. Send for Illustrated Catalogue. Agents wanted.

**A. H. FUNKE** 98 Duane St.  
New York

Sole Importer of Kelecom Motors  
and Autolyte Lamp Maker





To Owners of  
Gas and Gasoline  
Engines, Launches,  
Automobiles, Etc.

Do away entirely with  
ALL starting and run-  
ning batteries and their  
constant trouble and ex-  
pense by using instead an

### Auto-Sparker.

No belt—no switch—no batteries. Can be at-  
tached to any engine now using batteries.  
Fully guaranteed and costs less than 50 cents  
per year to operate. Write for descriptive  
booklet and testimonials.

MOTSINGER DEVICE MFG. CO.

38 Main Street,

Pendleton, Ind.

GET OUR CATALOGUE OF SUPPLIES.

Caps, \$1.50 and 3.00.

Spark Plugs, \$1.75, 2.50, 2.75,  
and 3.00.

Coils from \$5.50 to 36.00.

French Horns, \$3.50 and 3.00.

Auto Gongs, \$3.00 to 4.00.

EVERYTHING TO BUILD STEAM  
OR GASOLINE VEHICLES.

**THE P. J. DASEY CO.,**

19 and 21 La Salle St., Chicago, Ill.



Wonderful Results with  
**MOSLER  
Spit Fire Plug**

Pat. April, 1902.

Protected Porcelain and  
Sparkling Points. Special  
Nickel Rod with "crew Ad-  
justment. No Platinum to  
bend, none to break.

**Reversible Porcelain  
Double Life,  
Complete, \$2.50  
Extra Porcelain, 24c.**

Any Standard French and  
American Threads.  
AGENTS WANTED.

**A. R. MOSLER**  
309 Broadway, New York

**SUBSCRIBE  
NOW . . . .**

FOR THE

**AUTOMOBILE  
MAGAZINE**

**PATENTS.**  
**GEO. P. WHITTLESEY,**  
Loan & Trust Building,  
Washington, D. C.  
*Terms reasonable. Pamphlet sent*



**Dixon's  
Graphites  
for  
Automobiles.**

We would like to send you  
samples and our pamphlet.  
You will be surprised to know  
the results that come from the  
use of properly prepared graph-  
ite in the way of increased  
speed and ease in running.  
It will cost you not over two  
cents to make the inquiry, and  
you may be saved many dol-  
lars.

**Joseph Dixon Crucible Co.**  
JERSEY CITY, N. J.

In answering advertisements please mention THE AUTOMOBILE MAGAZINE.

Telephone Call, 289 W'msburgh

### EDWARD K. BLAISDELL

Main Office and Depot: 111 and 113 Kent Avenue

Brooklyn, N. Y., Aug. 5th, 1902

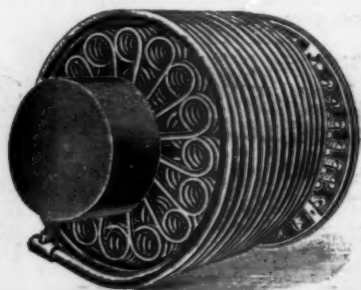
THE SALAMANDRINE BOILER CO., 270 Broadway, N. Y.

Gentlemen:—I wish to say that the ten horse power boiler that I have in my machine is the *best thing* that I have run up against as yet and have got to meet the machine that can *pass me* on the road for *one mile or thirty*.

If the boiler had been of the common variety *it would have been burned out a hundred times or more*, but shows no weakness as yet, and don't think that it will. I have no trouble to *hold the steam* at 250 lbs., at any time, *up hill or down*, and will be pleased to have any of your representatives call and see what the machine will do.

Very truly yours

(Signed) EDWARD K. BLAISDELL



## THIS IS THE “RIG THAT RUNS”



Everybody Knows It Now

They watched B 34 in the  
Endurance Run

NEVER MISSED A CONTROL  
NO MECHANICS  
NO HELPERS  
NOTHING SPECIAL

*Went in right cut of stock and went through on its merits, with a load of three passengers instead of two as intended.*

One of the best carriages at any price and undoubtedly the best value on the market.

Catalogs Free

## St. Louis Motor Carriage Co.

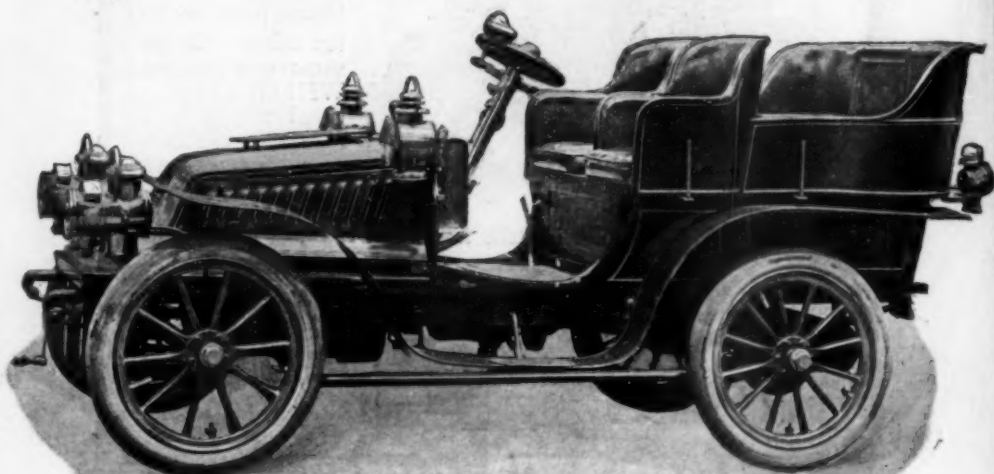
1120 Vandeventer Avenue, St. Louis, Mo.

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# DARRACQ CARS

HOLD MORE RECORDS THAN ANY  
OTHER MAKE IN THE WORLD

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In America Weekly Importations Insure  
Latest Styles and Immediate Delivery

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**AMERICAN DARRACQ AUTOMOBILE CO.**

F. A. LA ROCHE, Sales Manager

**652 Hudson Street, Near 14th St. Station  
9th Avenue Elevated, New York**

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# WHITE STEAM CARRIAGE

## Makes New World's Records



On September 16th at the Glenville track, near Cleveland, the White Automobile established new records for steam carriages for all distances from two to ten miles. At the same meeting the WHITE also captured the 5 mile race open to steam cars of all makes and weights.

### New and Old Records for Steam Vehicles

#### NEW.

MADE BY ROLLIN H. WHITE,  
Cleveland, Ohio, on September 16th, 1901.

2-M.....	2.44	1-2
3-M.....	4.03	4-5
4-M.....	5.24	
5-M.....	6.43	1-5
10-M.....	14.59	1-2

#### OLD.

MADE BY GEORGE C. CANNON,  
at Providence, R. I., October 17th, 1901.

2-M.....	4.01	3-4
3-M.....	6.00	3-4
4-M.....	7.55	1-4
5-M.....	9.40	3-4
10-M.....	19.05	4-5

Rollin H. White, Detroit, Mich., Oct. 19, 1901.

## The White is a Thoroughbred

Speed is only one desirable quality of an automobile. White Steam Carriages have made the unparalleled record of winning out in every endurance test in which they have been entered—coming through with soldier-like precision.

The White steam generator is absolutely non-explosive, gives pressure in five minutes from cold water, and once in motion is self-regulating. In touring, the WHITE will make 100 miles without adding a drop of water or fuel to the original supply.

Write for full particulars, including Prof. Thurston's report on our steam generator and the official reports of important endurance contests.

## WHITE SEWING MACHINE CO.

(Automobile Department) CLEVELAND, O.

22 Union Square, New York, N. Y.  
509 Tremont Street, Boston, Mass.  
300 Post Street, San Francisco, Cal.

609 Main Street, Buffalo, N. Y.  
12 Woodward Avenue, Detroit, Mich.  
300 Rose Building, Cleveland, Ohio.

# The Automobile Magazine

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VOL. IV No. 11

NOVEMBER, 1902

PRICE 25 CENTS

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AGENCY FOR FOREIGN SUBSCRIPTIONS:

INTERNATIONAL NEWS COMPANY

BREAMS BUILDINGS, CHANCERY LANE  
LONDON, E. C.

STEPHEN STRASSE, No. 18  
LEIPSIK

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12s. 4d. Sterling



JUST PUBLISHED

A TIMELY BOOK

**SELF-PROPELLED VEHICLES**

(J. E. Homans, A. M.)

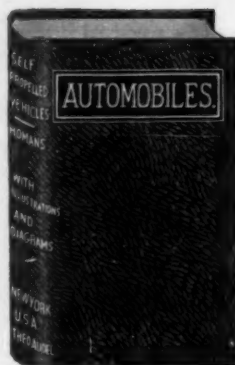
(A Complete Practical Handbook on the Automobile)

Containing full explanations, in plain language, on the theory, practice, operation, care and successful management of all types, Steam, Gasoline and Electric Vehicles.

A valuable treatise for Owners, Operators, Repairmen, Manufacturers, and all interested in Automobiles. Contains 640 pages, 500 illustrations and diagrams, size 6x8½; handsomely bound. Complete list of contents and sample pages sent free on request.

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**THE PRACTICAL GAS ENGINEER**

BOOK OF 140 PAGES

**A Manual That Tells What a Gas or Gasoline Engine Is. . .**

*How to Purchase a Gas or Gasoline Engine. How to Start It. How to Operate It. How to Care for It. WHAT TO DO WHEN IT GETS STUBBORN AND HOW TO DO IT. In Short Just How to Handle It Successfully and all About It.*

First Edition exhausted within nine months from issue.

Send one dollar and an order for a copy before the present edition is gone, to

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**AUTOMOBILE PRESS**

1 Maiden Lane, New York City

JUST PUBLISHED.

Second Edition. Revised and Enlarged.  
With 156 Illustrations. Cloth \$2.70,  
mailed free.

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BY

W. NORRIS, M. I. Mech. E., and  
BEN. H. MORGAN, Ed. Engineering Times.

This work is now regarded as a standard one on the subject, and describes and illustrates by photographs and drawings all the leading types of English, American and Continental High-Speed Steam Engines. This edition includes chapters on the Engines exhibited at the recent Paris and Glasgow Exhibitions respectively.

"The Electrical Review" says:—

"This book gives an excellent idea of the form and principle of most of the numerous engines it describes, and the illustrations are good, many of them being very specially good. Any one who wishes to find in condensed form the present status of the High-Speed Engine should secure this book."

Write to

**P. S. KING & SON,**  
2 & 4 Great Smith St., London, S. W.

**The Study of Steam**

its creation and its application as a motive power can best be accomplished by reading

**Railway and Locomotive Engineering**

PUBLISHED AT 174 BROADWAY, NEW YORK, N. Y.

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# The Baker Electric

When you see the BAKER ELECTRIC, you see the best made, most efficient and finest finished Electric Automobile in the country. We manufacture Stanhopes with Victoria or open top for ladies' driving or physicians' use, and two styles of Runabouts that have no equal. Send for Catalog.

**The BAKER MOTOR  
VEHICLE COMPANY**  
CLEVELAND, OHIO

## Studebaker Automobiles

A new electric vehicle showing radical departures in many essential features. The battery consists of 24 cells, carried in the rear of the body compartment. The motor is rigidly suspended from the frame of the gear, just in front of the battery. The battery will give a run of 40 miles on one charge, and can be recharged from any 110 volts direct current lighting circuit. In the severe test made during the last year, no breaks have occurred in running gear. It is a vehicle made for everyday use on country roads or city streets.

*Send for illustrated booklet*

## Studebaker Bros. Manufacturing Co.

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Chicago, Ill., 378-388 Wabash Avenue  
Kansas City, Mo., 810-814 Walnut Street  
San Francisco, Cal., Corner Market and Tenth Streets  
Denver, Col., 15th and Blake Streets  
Salt Lake City, Utah, 157-159 State Street  
Portland, Ore., 328-334 Morrison Street  
Dallas, Texas, 194-198 Commerce Street

**Local Agencies Everywhere**

Factory and Executive Office, SOUTH BEND, IND.

## Something New

In an Automobile Cap, furnished with eye-shield which serves as goggles and protects the eyes. This can be folded back into cap out of sight and out of the way when not in use. Always with you—never in the way.



**\$2.50, Post-paid anywhere in U.S.**

This cap is made of black calfskin, silk sewed, satin lined, with French visor and high stiff front. Eye-shield is made of transparent tinted green celluloid very pleasant to the eyes, or white celluloid, if preferred.

Same shape as above in dull black Mexican Kid, with eye shield .... **\$2.00**

Same shape in Black French Kid, with eye-shield ..... **\$1.50**

Any size furnished. State size in ordering. Mailed prepaid on receipt of price.

**The POST & LESTER CO.**  
HARTFORD, CONN.

## MOTOR VEHICLES

**For Business and Pleasure**

**ENGINES, GEARS,  
MUFFLERS, ETC.  
DESBERON \$1.50  
PLUGS, 1**

## Desberon Motor-Car Co.

**51st Street and Twelfth Avenue  
NEW YORK CITY**

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# JACKSON & SCHMELZEL

SPECIALISTS IN

## Automobile Photography

FLUSHING, N. Y.

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By C. C. BRAMWELL.

Best book we know of  
on the subject. Plain  
and practical. Gives  
directions for building  
the whole vehicle from  
motor to running gear.  
You want one. \$2.00.

AUTOMOBILE MAGAZINE  
174 Broadway  
New York.

## R·I·P·A·N·S

There is scarcely any condition of ill-health that is not benefited by the occasional use of R·I·P·A·N·S Tablets. For sale by Druggists. The Five-Cent packet is enough for an ordinary occasion. The family bottle, 60 cents, contains a supply for a year.

## "Whitney" Chains

USED BY THE LEADERS

The Whitney Mfg. Co., Hartford, Conn.

## Who Shall Teach Advertising

Ask any number of newspaper publishers or business men who is the best known and most successful advertising specialist, and seven out of ten of them will say "Charles Austin Bates." For half a dozen years Mr. Bates has received for planning, writing, and illustrating advertising, more money than any other half dozen men in that business.

We have secured Mr. Bates' services as preceptor in our course in Advertising. We purpose to teach the methods that have been proven most successful. We think that every young man, or woman, who is going to spend time and money to learn this very desirable and profitable profession, should receive instruction from a man who, by his own success has established his right to instruct others. The cost of our course is moderate, and under certain conditions we guarantee that our pupils will earn enough money to pay the tuition before the term is completed.

This rather startling innovation is fully set forth in our prospectus, which will be sent on receipt of three 2-cent stamps.

American College of Applied Arts  
120 NASSAU ST., NEW YORK

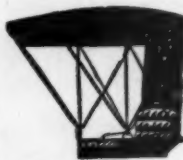
## THE HOWARD SYSTEM

Indispensable for Starting Fire  
ON STEAM AUTOMOBILES

No preliminary heating; starts a gasoline burner instantaneously with a match, like a gas burner. Safe, quick and clean. A postal card will tell you all about it.

J. F. HATHAWAY,

31 Chester Street, W. Somerville, Mass.



Automobile  
Trimmings  
and Woodwork

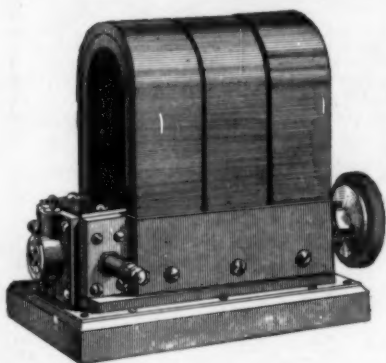
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The Hill Mfg. Co.  
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BUFFALO, N. Y.

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## THE NEW HENRICKS IGNITER

A SURE CURE FOR SPARKING TROUBLES. USED BY LEADING AUTO AND MARINE ENGINE BUILDERS. SUCCESSFULLY WORKS JUMP SPARK COIL.



Booklet telling all about it FREE.

**HENRICKS NOVELTY CO.,**  
617-619 So. Illinois St., Indianapolis, Ind.

### ATLANTIC CITY A PLEASANT FALL RESORT

#### SOCIAL LIFE STILL A FEATURE

In many ways Atlantic City is the most novel place in the world. Even though it is a shore resort its season is twelve months long and at all seasons there is something doing. The great hotels, and there are many of them, are open all the year and the service is fine at all times.

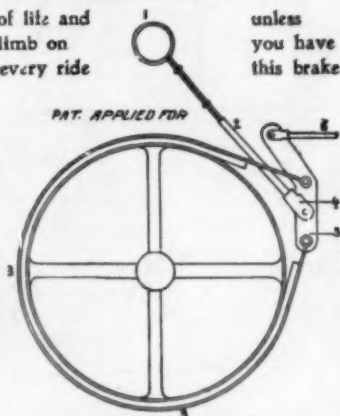
Atlantic City is a city in every sense of the word, and every convenience is afforded, including golf, driving, theatres and similar diversions.

It is a particularly healthful place and the autumn months at Atlantic City are always charming. The famous promenade, the board walk, is ever interesting and no better season can be selected for visiting this famous watering place. The New Jersey Central operates 3 hour trains to Atlantic City from New York at 9.40 a.m. and 3.40 p.m. These trains are models in every respect, and the arrival at Atlantic City is in time for luncheon and dinner. The route is by far the shortest from New York and the General Passenger Agent of the New Jersey Central, New York, has prepared an illustrated booklet on Atlantic City which upon application will be sent to any address.

## You are in DANGER

of life and  
limb on  
every ride

unless  
you have  
this brake!



THIS BRAKE holds in either direction—does not bind and WILL HOLD YOU ANYWHERE. Better send a postal and find out more about it.

**N. J. Automobile Co.,**  
8 Central Ave., Newark, N. J.  
Agents Wanted.

## PHINEAS JONES & CO.

MAKE

## Artillery Wheels For Automobiles

One Quality—THE BEST

ADDRESS

301 to 313 MARKET ST.  
NEWARK, N. J.

R. S. V. P.

# WIRE WHEELS. STEEL RIMS.

Any Section.  
Any Diameter.  
For Vehicles  
from 300 to  
2500 pounds.

Any Section.  
Any Diameter.  
For Wood or  
Wire Wheels.

Steering Knuckles  
To Fit.

WE ARE THE OLDEST AND  
LARGEST COMPANY IN  
THIS LINE.

We want your business. : : : :  
We make one hundred to your one.  
For this reason we can save you  
money and give you better goods.

Send us your Specifications.

Weston-Mott Co., Utica, N. Y.

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**Steel Castings, 25 pounds and under.**

Estimates given on not less than 100 from each pattern.

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AND FOUNDRY CO.**

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NEW YORK





Roll Top Cabinet

**BOWSER CABINETS**

Keep oils free from dust and dirt and prevent all loss from waste and leakage.

**A Dozen Different Styles**  
Catalogue "G. G." Explains Fully.

YOUR  
**Automobile Stable**

IS  
**NOT FULLY EQUIPPED**

Until You Have Installed

**THE BOWSER** ADJUSTABLE  
**MEASURE OIL CABINET**

for the storing and handling of your

**COSTLY LUBRICATING OILS**

No waste of oil or time.  
No use of measures or funnels.  
No dirty, oil-soaked floors.  
No use for cotton 'waste' and so  
No danger of fire.

"OILER"  
FILLED  
AT ONE  
STROKE

HENCE IT IS

**ECONOMICAL, CONVENIENT, CLEAN,  
SATISFACTORY**

Pumps accurate Quarts, Pints and Half Pints or  
Pints, Half Pints and Quarter Pints.

**S. F. BOWSER & CO.,** FORT WAYNE  
INDIANA

**Duffy's Pure Malt Whiskey**

Only whiskey  
recognized by  
the govern-  
ment as a med-  
icine. An ideal  
and healthful  
tonic and stim-  
ulant. . . . .

When touring  
take a bottle  
with you. It  
lubricates the  
physical and  
mental man.

WRITE FOR  
FREE MEDICAL  
BOOKLET. . . . .

**Duffy Malt  
Whiskey  
Company**  
ROCHESTER, N. Y.

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Telephone Call, 239 W'msburgh

### EDWARD K. BLAISDELL

Main Office and Depot: 111 and 113 Kent Avenue

Brooklyn, N. Y., Aug. 5th, 1908  
THE SALAMANDRINE BOILER CO., 220 Broadway, N. Y.

Gentlemen:—I wish to say that the ten horse power boiler that I have in my machine is the *best thing* that I have run up against as yet and have got to meet the machine that can *pass me* on the road for *one mile or thirty*.

If the boiler had been of the common variety it *would have been burned out a hundred times or more*, but shows no weakness as yet, and don't think that it will. I have no trouble to *hold the steam* at 250 lbs., at any time, *up-hill or down*, and will be pleased to have any of your representatives call and see what the machine will do.

Very truly yours

(Signed) EDWARD K. BLAISDELL



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Everybody Knows It Now

They watched B 34 in the  
Endurance Run

NEVER MISSED A CONTROL  
NO MECHANICS  
NO HELPERS  
NOTHING SPECIAL

*Went in right out of stock and went through on its merits, with a load of three passengers instead of two as intended.*

One of the best carriages at any price and undoubtedly the best value on the market.

Catalogs Free

## St. Louis Motor Carriage Co.

1120 Vandeventer Avenue, St. Louis, Mo.

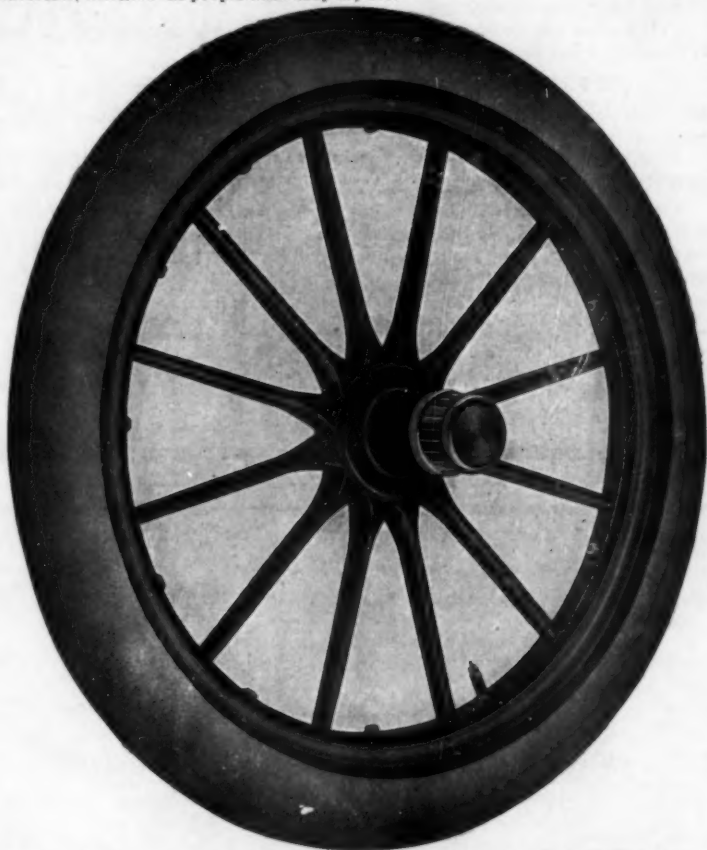
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## The Prophet Probably Meant the Midgley

"As for the wheels, it was cried unto them,  
in my hearing, 'Oh, Wheel!'"—Ezekiel, 10, 13.

### THE MIDGLEY—IT IS THE WHEEL!

and the people will cry for it, and manufacturers of automobiles, if alive to their best interests, will give the people what they cry for.



## The Midgley Tubular Steel Wheel

looks better, lasts longer, and is safer than any other wheel made. Our artillery pattern is guaranteed for one year, and to last longer than any automobile they carry. We will replace free of charge any Midgley wheel if broken in a fair test, where strength counts. The Midgley Wheel can accommodate any bearing, and weighs 10 more than any other wheel.

Send for testimonials and other literature about the Midgley Wheel.

**THE MIDGLEY MFG. CO.,**

Columbus, Ohio

Western Selling Agent: K. FRANKLIN PETERSON, 165 Lake St., Chicago.

Eastern Selling Agent: THOMAS J. WETZEL, 50 Warren St., New York.

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## *A Foster Clincher!*

Again the FOSTER Automobile  
Proves its Superiority 3 3 3 3

Their wagon, known as "B 70," won a Blue Ribbon in the New York-Buffalo Endurance Race, 1901.

This same wagon had continuous, hard usage from September, 1901, to October, 1902, and then was entered as

"B 70" in the New York-Boston Reliability Contest, and with the original Boiler, Engine and all vital parts, finished with 100 per cent. Reliability credit.

NO OTHER MAKE OF MACHINE MADE A BETTER RECORD.  
THE FOSTER IS A STEAM VEHICLE.

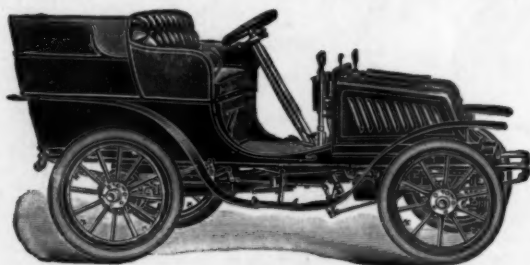
Of the Automobiles that started in the big run, fifty-five were gasoline and nineteen steam. Of those that finished with clean scores, ten were steam and ten were gasoline—conclusively proving the superiority of steam as a motive power for touring purposes.

Catalogue of FOSTER Automobiles sent on request.

**FOSTER AUTOMOBILE MFG. CO.**  
ROCHESTER, N. Y.

## Darracq Cars

HOLD MORE RECORDS THAN ANY  
OTHER MAKE IN THE WORLD



In America Weekly Importations Insure  
Latest Styles and Immediate Delivery

**AMERICAN DARRACQ AUTOMOBILE CO.**

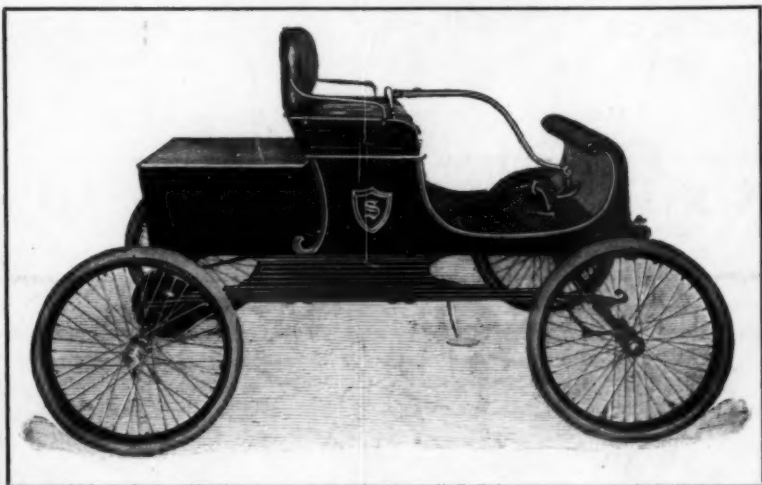
F. A. LA ROCHE, Sales Manager

652 Hudson Street, Near 14th St. Station,  
9th Avenue Elevated, New York

# The Average Man

## \$650

wants a vehicle that will carry him anywhere he wants to go and not require a skilled mechanic to keep it in order.



## The SPAULDING Gasoline Runabout

meets his every requirement. Starts from the seat. Runs 200 miles on one charge of gasoline and is **SIMPLE — DURABLE — ECONOMICAL.**

### Spaulding Automobile & Motor Co.

63 Chandler St., BUFFALO, N. Y.

### NEW JERSEY AUTOMOBILE CO., Newark, N. J.

Agents for New Jersey and New York City.

**Reliable Agents Wanted.**



**Tried,  
Tested  
and Proven.**

**ADDRESS ALL CORRESPONDENCE  
TO**

**17,000  
Miles of Actual  
Road Experience.**

## Friedman Automobile Co.

**No. 3 EAST VAN BUREN STREET,  
CHICAGO, ILL.**

**Price, \$750.00.**

**Hydro-Carbon.**

**Capacity, 125  
Miles.**



**6 H. P., Actual,  
Starts from  
Seat. No Gear.**

**Simplest  
Machine Ever  
Constructed.**

**MANUFACTURED AT BELVIDERE, ILLS., BY THE**

## NATIONAL SEWING MACHINE CO.

**CAPACITY, 10 MACHINES PER DAY.**

**IMMEDIATE DELIVERY.**

**We have done our  
own experi-  
menting**

**AGENTS  
WANTED**



**:: BARRETT'S PATENTS**

## The Barrett Automobile Jack

**is a QUICK-ACTING  
AUTOMATIC LOWERING JACK**

**Having a Lifting Capacity of ONE TON—  
Dead Weight—and Adapted to any  
Automobile.**

**The "BARRETT" JACK is  
QUICK, DURABLE, SAFE,  
POWERFUL, EFFICIENT**

**And its LOWERING APPLIANCE is a NEW  
and INDISPENSABLE Feature**

**SEND FOR CIRCULAR AND PRICES :: LIBERAL DISCOUNTS TO DEALERS  
BARRETT JACKS are made ONLY by The DUFF MANUFACTURING CO.**

**Works and General Offices  
Allegheny, Pa.**

**Pittsburg, Pa.**

# G & J TIRES AND GOOD RESULTS

== GO HAND IN HAND ==

THE USUAL ENVIABLE RECORD WAS MADE BY G & J TIRES IN THE NEW YORK-BOSTON RELIABILITY RUN.

THE FEW PUNCTURES THAT OCCURRED WERE REPAIRED EN ROUTE, THUS DEMONSTRATING THE PRACTICABILITY OF EMERGENCY REPAIRS ON G & J TIRES. THESE PUNCTURES WERE THE ONLY ACCIDENTS TO G & J TIRES.

SEVEN CARS ENTERED THE RUN EQUIPPED WITH G & J TIRES. TWO DISCONTINUED OWING TO SLIGHT MISHAPS TO MACHINERY. THE REMAINING FIVE FINISHED CREDITABLY.

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### ARE STRONG, FAST, RELIABLE

G & J TIRE COMPANY - - INDIANAPOLIS



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given to the consideration of **Automobile Insurance** will convince every prudent owner of an automobile that it is a wise precaution to carry insurance policies protecting him against loss:

1. From fire; and
2. From damages and damage suits for personal injuries, for negligent operation, defective machinery or other causes.

**Fire Insurance** policies of the ordinary style are issued under the most liberal forms to cover automobiles while in storage and those of the "floater" style to cover while in storage or use within the United States.

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Full explanation of the several forms of **Automobile Insurance**, as well as estimates for each style, will be given upon request by mail, telephone or personal interview. Prompt attention given to all communications.

### INSURANCE DEPARTMENT

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Telephone 4545 Cortlandt

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## ASK AND FIND OUT

**NO MATTER** what you want to know about an automobile, its power, maker, price, stability, suitability, or anything else, can be quickly ascertained at no additional expense than for the postage employed in stating your difficulties to the

### INFORMATION BUREAU

OF

## The Automobile Magazine

1 MAIDEN LANE, NEW YORK CITY

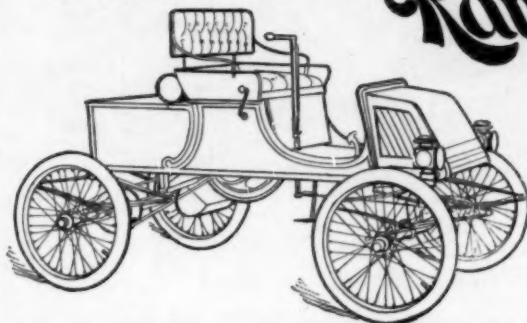
We do not claim to know it all, but what we don't know we can find out for you—perhaps better than you can for yourself.

If you are having more than your share of auto troubles we can probably help you. Don't be bashful—send in your queries.

In answering advertisements please mention THE AUTOMOBILE MAGAZINE.

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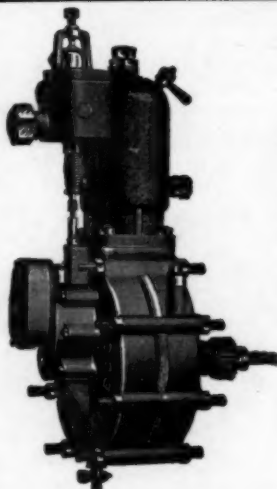
*Rambler*

is the equal of the \$1,000 kind, but at one-third the cost. Read the reports and note the steadiness of the RAMBLER on hills and through sand. Catalogue free.

THOMAS B. JEFFERY & CO., KENOSHA, WISCONSIN.

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ARE THE BEST ROAD HELPERS  
**Good Motors and Lamps**  
ARE AMONG THE VERY ESSENTIAL  
REQUISITES IN AUTOMOBILING  
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The Famous Kelecom Motor,  $1\frac{3}{4}$  to 11 H. P. Used very largely abroad and is the most famous motor importation for Automobiles and Bicycles. A 5 H. P. Kelecom Motor in an 822 pound carriage with two passengers finished ahead without a single stop in the 100 mile Long Island Endurance Test, using only three and one half gallons of gasoline.

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Sole Importer of Kelecom Motors  
and Autolyte Lamp Maker



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WHEN YOU USE ❧ ❧ ❧

## "WHALEBONE" TIRES.

WHY? BECAUSE

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| 1st. | They are puncture proof.  | 6th. | They are more graceful in design and outline than any other tire, and give an unequalled finish to the wheel. |
| 2nd. | They last twice as long as any other tire made.   | 7th. | They maintain, under all loads, the same tread surface.   |
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| 4th. | They throw less mud and very much less dust.  | 9th. | The resiliency is better distributed, and they ride easier.   |
| 5th. | Being reinforced on the upper side they are never cut by the rim.   |      |   |

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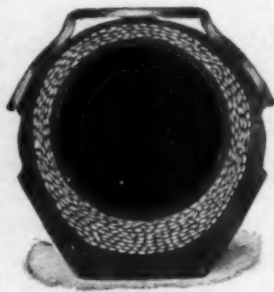
Successors to NEW BRUNSWICK RUBBER CO.

Manufacturers of High-Grade AUTO and CARRIAGE TIRES of all descriptions.

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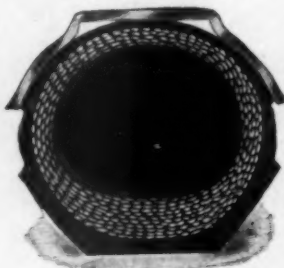
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giving  
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Stay Thread  
Fabric, also  
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SAVE MONEY, TIME, WORRY

For a comparatively small premium we will protect you against loss from liability on account of accidents to any person or persons by means of the Automobiles in your service.

***Do not wait until you have a serious accident.  
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You never heard of Trouble  
with **FISK TIRES**  
on the Reliability Run.

### FISK TIRES ARE ALL RIGHT

Specify them in your 1903 Auto and replace unsatisfactory tires with them. Literature for the asking.

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Delmonia. S. R. C.

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AIR COOLING FOR WINTER AS WELL AS SUMMEROur well known high-class workmanship, durable construction, simple  
method of operation and low cost make the Crestmobile the admitted  
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GASOLINE MOTORS, COILS AND AUTOMOBILE ACCESSORIES

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Three Searchmonts started in the New York-Boston Reliability Contest and all of them made a perfect score of 2092 points, EACH ONE winning a GOLD MEDAL and qualifying for the PRESIDENT'S CUP. This again demonstrates the fact that

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 "America's Leading Automobile"

FOURNIER'S SEARCHMONT AUTOMOBILE CO.  
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## Reliability Supreme

Will be found in every

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UNIFORM AND RELIABLE WORKMANSHIP  
 IS OUR CHIEF AIM

THE 1903  
 STEARNS  
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Before purchasing send for particulars of a first-class Gasoline Automobile which will not disappoint you.

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 BROOKLYN—Lewis Automobile Co., 488 Hancock St. Telephone, 1005 Bedford. S. R.  
 BROOKLYN—Alex. E. Pastre, 519 Sixth Ave. Telephone, 464F South. S. R. C.  
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 BROOKLYN—Sterling Automobile & Motor Cycle Co., 1104 Fulton St. Telephone, 811 Bedford. S. R.  
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 BALTIMORE—O. L. Gooden, 1118 Cathedral St. Telephone, B. 1121. C. & P. 1199-A.  
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**Tonkin Dry Plate Boilers  
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 Heavy Truck Boilers  
 Perfect Kerosene Burners**

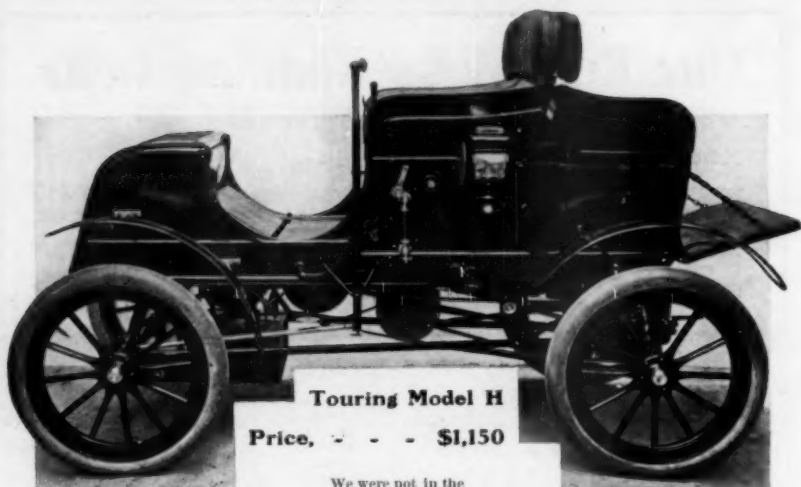
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**TONKIN BOILER COMPANY, Oswego, N. Y.**



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We were not in the

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**Largest Automobile Dealers in America**

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50 W. 43rd Street

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Pierce 3 1-2, 5 and 6 H. P.

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Is found in our Reachless Gear. Five styles for 600 to 3,000 pound vehicles. We will not compete against cheap goods which are in the long run costly to purchasers. ... We furnish our Duplex and Compound Engines and guarantee them. Complete vehicles, less power, also made

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BOSTON—Winton Motor Carriage Co., 41 Stanhope St. S. R.  
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BOSTON—Columbus Automobile Exchange, 147 Columbus Ave. Telephone, 338-2 Tremont. S. R.  
BOSTON—Automobile Headquarters, 66 Stanhope St. Telephone, 842-2 Tremont. S. R. C.  
BOSTON—Park Square Auto. Station No. 1, 43 Columbus Ave. Telephone, Tremont 616. S. R. C.  
BOSTON—H. B. Shattuck & Son, 229 Columbus Ave. S. R. C.  
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CLINTON—Clinton Mch. Works, 460 High St. Telephone, 153-5. S. R.  
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CONCORD—John M. Keyes. Monument St. Telephone, 41-6 and 14-5. S. R. C.  
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HUDSON—F. D. Knight & Son, 49 Church St. R.  
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PLYMOUTH—G. E. Rounds. Telephone, 205-3. S. R. C.  
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SO. FRAMINGHAM—Chas. F. Whyte, 17 & 19 Irving St. R.  
SPRINGFIELD—Headquarters, 36 Dwight St. Telephone, 1130. S. R. C.  
SPRINGFIELD—Nat. Auto. Supply Co., 226 Worthington St. Telephone, 819-3. S. R.  
SPRINGFIELD—Springfield Auto. Co., 60 Main St. Telephone, 853-4. S. R. C.  
STOUGHTON—James Lehan, Lehan's Bldg. Telephone, 38-4 and 38-7. S. R. C.  
WALTHAM—Harvard Auto Corporation. S. R.  
WESTFIELD—Loomis Automobile Co. S. R. C.  
WORCESTER—Worcester Automobile Co., 30 Exchange St. Telephone, 1444. S. R. C.  
WORCESTER—Worcester Automobile Station No. 1, 43 Foster St. Telephone, 659-4. S. R.  
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EMBODY LATEST IDEAS IN CONSTRUCTION AND DESIGN.

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Philadelphia—Broad and Vine Streets.  
Banker Brothers Co., Agents for New York City, 50 West 42d Street.  
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JUST WHAT YOU WANT

CLASSED ONLY WITH THE BEST AT LESS PRICE



1903 Catalogue Now Ready

THE AUTOCAR COMPANY, Ardmore, Penna.

## OTTO ENGINES

Are Doing the Work of the World

The demand for large units is rapidly increasing. We are prepared to meet it. Our entire line of single cylinder horizontal engines from 30 to 150 H.P. has been remodeled during the last two years, brought right up to now, and five years ahead of the nearest competitor. 20,000 feet of floor space added to our factory and latest improved machine tools installed. :: :: :: :: :: :: :: :: ::

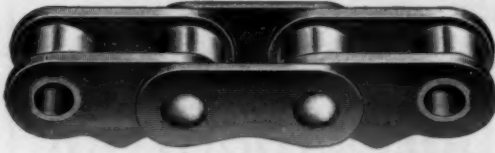
**WE CAN MEET YOUR REQUIREMENTS**

**THE OTTO GAS ENGINE WORKS**

**PHILADELPHIA, PA.**

New York Representative — R. C. READING, 121 Liberty Street

## The Whitney Mfg. Company HARTFORD, CONN.



### "Whitney" Chains

Are famous for Accuracy, Durability and Fine Proportions.

### "Whitney" Standards

Have been adopted by most of the leading Automobile Manufacturers for the season of 1903.

#### MISSOURI

ST. LOUIS—R. J. Leacock Supply Co., 711 Pine St. S. R. C.  
KANSAS CITY—Day Auto. Co., 1407 So. 12th St. Telephone, 1742 Main. S. R. C.  
ST. LOUIS—Halsey Auto. Co., 4259-65 Olive St. "Both 'Phones." S. R. C.  
ST. LOUIS—Day Auto. Co., 1010 Olive St. Telephone, Bell, Main 1310. S. R. C.

#### NEW JERSEY

ASBURY PARK—C. R. Zacharias, 725 Mat-tison Ave. Telephone, 40F. S. R. C.  
ATLANTIC CITY—Arthur Boyce, 1735 Atlantic Ave. Telephone, 113-F and 766-F. S. R. C.  
BERLIN—Townsend Dowd. Telephone, 8X.  
BRIDGETOWN—Jacob R. Elwell. R.  
BURLINGTON—Gray Mfg. Co., 1116 Main St. S. R. C.  
EAST ORANGE—John M. Schmidt, 22 Railroad Pl. Telephone, 1504 E. O. S. R. C.  
EGG HARBOR—Jacob Wimberg. Telephone, Bell. S. R. C.  
HACKENSACK—Davison Eng. Co., Main and Bridge Sts. Telephone, 175-L. S. R. C.  
HACKENSACK—Wood & Bedly, 311 and 313 Main St. S. R. C.  
HACKETTSTOWN—M. S. Neighbor, Hope St. (King Bldg.). S. R. C.  
HOBOKEN—Meyer, V. F., 520 Washington St. Telephone, 117-B Hoboken. S. R. C.  
JERSEY CITY—Crescent Cycle & Automobile Co., 548 Communipaw Ave. Telephone, 1253 Bergen. S. R. C.  
JERSEY CITY—D. W. Romaine, 70 Erie St. Telephone, 1559 F. S. R. C.  
JERSEY CITY—Geo. A. Smythe, 2926 Boulevard. S. R. C.  
LAKEWOOD—Jos. B. Hoff, Main St. foot of Lex Ave. Telephone, 125B. S. R. C.  
MORRISTOWN—Willis H. Dretton, 24 Washington St. Telephone, 173. S. R. C.

NEWARK—New Jersey Automobile Co., 8 Central Ave. Telephone, 734 Newark. S. R. C.

NEWARK—The Automobile Company, 79 Orange St. Telephone, 790. S. R. C.

NEWARK—J. W. Geissler, 46 William St. S. R. C.

NEWARK—L. Lawrence, 241 Halsey St. S. R. C.

NEWARK—Lewis J. Worth, 26-28 William St. S. R. C.

NEWARK—Koehler Sporting Goods Co., H. J., 845 Broad St. Telephone, 2864 Newark. S. R. C.

NEWARK—C. S. Calvert, 141 Halsey St. Telephone, 3714. S. R. C.

NEW BRUNSWICK—Wm. J. McDede, 68-70 Albany St. S. R. C.

NEW EGYPT—Chafey & Brown. S. R. C.

PASSAIC—Geo. De W. Brown, 271 Main Ave. Telephone, 206 B. Passaic. S. R. C.

PATERSON—Stockbridge, F. W., Broadway & 18th St. Telephone, 2433 Paterson. S. R. C.

RED BANK—Geo. H. Patterson, 8 Broad St. S. R. C.

RIDGEWOOD—S. B. Hagerman, Bergen Co. S. R. C.

SEABRIGHT—H. L. Zobel, Jr. Telephone, 26-B. S. R. C.

SOUTH ORANGE—W. L. Mead, 275 Ridgewood Road. G.—Repair.

SUMMIT—C. G. Henry. R.

SWEDESBO—Chas. Hall. S. R. C.

VINELAND—C. W. Pearson, N. 6th St. Telephone, 35 Interstate. S. R. C.

#### NEW YORK

NEW YORK—Adams, McMurtry Co., 317 West 59th St. Telephone, 623 Columbus. S. R. C.

## "THE RUTENBER"

Factory, Logansport, Ind.

WATER COOLED, FOUR CYCLE, UPRIGHT GASOLINE MOTORS. TWO AND FOUR CYLINDER TYPE. FROM 3 TO 60 H.P. FOR AUTOMOBILES AND LAUNCHES. FROM 10 TO 150 H.P. FOR STATIONARY PURPOSES.

Also Automobiles of Every Style,  
Delivery Wagons, Omnibuses and Auto Trucks

SEND FOR PRICES

THE RUTENBER MANUFACTURING CO., 115 DEARBORN STREET, CHICAGO

In answering advertisements please mention THE AUTOMOBILE MAGAZINE.

# THE GOLD MEDAL

The Highest Award

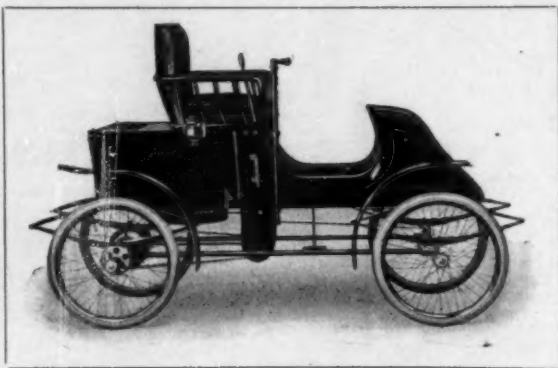
IS AWARDED TO

## The Prescott Steam Car

FOR A PERFECT SCORE IN THE  
500 MILE RELIABILITY RUN 5 5 5

Perfect Prescott

Perfect Performance



One  
Started  
and it  
Finished  
without a  
Repair  
of any kind  
necessary

IT REQUIRES CONFIDENCE TO STAKE YOUR REPUTATION  
ON ONE ENTRY.

PRESCOTT QUALITY AND ABILITY TOLD  
THEY STAND THE TEST

STEAM AS A MOTIVE POWER IS KING

PROVEN BY THE RESULT OF THE RELIABILITY RUN

1903 MODELS NOW READY

Place your order early if you want the BEST.

Prescott Automobile Mfg. Co.

83 CHAMBERS STREET, NEW YORK  
FACTORY: PASSAIC, NEW JERSEY

Agents will be appointed in unoccupied Territory.

Send for Catalog and Official Report of Run.



## 50 per cent. of your troubles may be caused by inferior oils

Smutting spark plugs and heating cylinders are two of the evils resulting from cheap oils.

# Visco Oils

are made especially for automobile use and they do the work every time. Some very interesting information on this subject can be had by addressing an inquiry to

**THE RED BOOK OIL DEPARTMENT**  
51 Front Street, New York

### NEW YORK—Continued

NEW YORK—S. B. Bowman Automobile Co., 52 West 43d St. Telephone, 400 38th St. S. R. C.  
NEW YORK—Banker Bros. Co., 50 West 43d St. Telephone, 4138 38th St. S. R. C.  
NEW YORK—International Motor Car Co., 91 Fifth Ave. Telephone, 1407 18th St. S. R. C.  
NEW YORK—Manhattan Automobile Co., 56 West 43d St. S. R. C.  
NEW YORK—Geo. Mortensen, 150 West 38th St. S. R. C.  
NEW YORK—Oldsmobile Co., 40 West 60th St. Telephone, 2580 Columbus. S. R. C.  
NEW YORK—New York Automobile Repository, 143 West 51st St. Telephone, 1601 Columbus. S. R. C.  
NEW YORK—Pa-Delford & Bell, 250 West 80th St. Telephone, 2363 Riverside. S. R. C.  
NEW YORK—St. Nicholas Automobile Depot, 55 West 66th St. Telephone, 1271 Columbus. S. R. C.  
NEW YORK—Westchester Automobile Co., 12 East 27th St. Telephone, 192 Madison Sq. 523 Fifth Ave. Telephone, 6029 38th St. S. R. C.  
NEW YORK—W. H. Webster Automobile Co., 10 West 60th St. Telephone, 1874 Columbus. S. R.  
NEW YORK—A. Elliott Ranney, 306 W. Fifty-ninth street. Telephone, 2060 Columbus. S. R. C.  
NEW YORK CITY—Spalding-Bidwell Co., 38-40 West 43d St. Telephone, 691 38th St. S. R. C.  
NEW YORK CITY—Chas. Strathmann, 175 E. 120th St. Telephone, 1444-A Harlem. S. R.  
NEW YORK CITY—Smith & Mabley, 7th Ave. and 38th St. Telephone, 6945, 38th.  
NEW YORK CITY—"The Central," 1624 Broadway, between 52d and 53d Sts. Telephone, 596 Columbus. S. R. C.

NEW YORK CITY—John Wanamaker, 140 E. 57th St. Telephone, 1161 38th St. S. R. C.  
NEW YORK—West End Automobile Exchange, 112 West 127th St. Telephone, 3326 Harlem. S. R. C.  
NEW YORK—Geo. Mortensen, 150 West 38th St. Telephone, 6532 38th St. S. R.  
NEW YORK—Ajax Motor Vehicle Co., 220 West 36th St. Telephone, 5376 38th St. S. R.  
NEW YORK CITY—Automobile Exchange & Storage Co., 133-139 West 38th St. Telephone, 5504 38th St. S. R. C.  
NEW YORK CITY—Harlem Automobile Co., 159-163 West 127th St. Telephone, 1459 Harlem. S. R. C.  
NEW YORK—Knickerbocker Automobile Station, 143 West 51st St. Telephone, 1601 Columbus. S. R. C.  
NEW YORK—Diamond Cycle Co., 209 West 126th St. R.  
NEW YORK—Eureka Automobile Agency, 2285 Eighth Ave., 123d St. Telephone, 3493 Harlem. S. R. C.  
NEW YORK—Storage Battery Supply Co., 239 E. 27th St. Telephone, 1065 Madison Sq. S. R. C.  
NEW YORK—West End Storage Warehouse, 202-210 West 89th St. Telephone, 144 Riverside. S. R. C.  
NEW YORK—Lewis H. Woods, 2376 Jerome Ave. 306 Tremont. S. R. C.  
ALBANY—F. G. Robinson, 422 Broadway and 97 Central Ave. S. R. C.  
BINGHAMTON—R. W. Whipple, 169 State St. S. R. C.  
BUFFALO—G. H. Poppenberg, 636 Main St. Telephone, Tupper 472. S. R. C.  
BUFFALO—Buffalo Auto. Exchange, 320 Franklin St. Telephone, Lupper 470. S. R. C.  
HERKIMER—J. C. Keefe, 141 Main St. S. R.  
MT. VERNON—Jos. A. Henning, 205 State Ave. Telephone, 100F Mt. V. S. R.

## THEY ALL READ ALIKE ABOUT Brennan Gasoline Motors

No such praise has ever been given motor makers as Brennan Motors have received. All good things are praised—and rightly so. READ THIS CAREFULLY:

"THE BRENNAN MOTOR CO., Syracuse, N. Y.

"Gentlemen:—I have the first automobile finished. We have made a good test run of about one hundred miles. The motor so far as I can see works perfectly. No noticeable vibration and as near noiseless as it seems it would be possible to make a motor.

"So far it is indeed very satisfactory. I thank you very much for your last letter of full instructions telling me how to take care of and operate motor; it has been a great deal of help to me.

"The automobile is a great success which can be largely attributed to the motor. It has created quite an excitement among the Greeley people.

"Please quote price on a motor for a ten passenger rig.  
(Name furnished if desired.)

"Gree'ey, Colo., Oct. 11, 1902.

Yours truly, \_\_\_\_\_"

In answering advertisements please mention THE AUTOMOBILE MAGAZINE.

# THE WINTON BROKE THE RECORD

(But the Winton is Always Doing That)

---

**A** WINTON TOURING CAR, on Oct. 15th, ran the 250-mile course between Boston and New York in the remarkable record time of less than 12 hours. The car won a perfect score and had the advantage of complete check by the control officials of the Automobile Club of America's New York-Boston-New York reliability run.

**The Performance Clipped Six Hours from the Previous Best Record.**

This car, owned by Mr. H. D. Corey, the well known Boston banker, had just been released from the customs after completing a several thousand miles' successful tour upon the European continent. It was a 15 H. P. car with standard 1902 equipment throughout.

**The new Winton Touring Car will have a 20 H. P. motor and many other improvements which will maintain its position upon the top-most round of the automobile ladder.**

---

## The Winton Motor Carriage Co.

Factory and General Offices  
**CLEVELAND, U. S. A.**

---

Branches

NEW YORK

BOSTON

CHICAGO

PHILADELPHIA

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In answering advertisements please mention THE AUTOMOBILE MAGAZINE.

## Use Albany Grease

for your Automobile.

### WHY?

It is the only safe lubricant under all conditions. It is always uniform in quality. It does the work; every particle is a lubricant. It avoids hot bearings and will not gum. It will bring you back in as good condition as when you started.

It is used by most manufacturers of automobiles to start their new machines.

Use No. 2 grade for Winter and No. 3 for Summer. The quality of all grades is the same, the only difference is in consistency.

It can be purchased the world over from engine and mill supply hardware oil houses.

Only made by

Adam Cook's Sons, 313 West St., N. Y. City, U. S. A.

This Trade Mark on Every Package.



Look out for Yellow Label.

### NEW YORK Continued

NEW ROCHELLE—A. Lams, 277 Main St. Telephone, 268A. S. R.

NIAGARA FALLS—W. H. Davey, 231 First St. Telephone, Bell 336-X. S. R.

ONEIDA—Oneida Rubber Tire Works, Cedar and Phelps Sts. Telephone, Bell S. R. C.

FOUCHKEPSIE—John Van Benschooten, 14-20 Catherine St. Telephone, 39-A. S. R. C.

RHINEBECK—J. Vanderlinden. S. R.

ROCHESTER—Jos. J. Mandery, 150-170 South Ave. S. R. C.

ROCHESTER—Rochester Auto. Co., 150-170 South Ave. Telephone, 3 S. R. C.

SCHENECTADY—A. R. Burtiss & Son, 148-15 Jay St. Telephone, 202-D. S. R. C.

SUFFERN—J. B. Campbell, Orange and Lafayette Aves. S. R. C.

SYRACUSE—Syracuse Auto. Co., 346-348 S. Warren street. Telephone, 955. S. R. C.

TROY—James Lucy, 359-361 Fulton St. Telephone, 399-M. S. R. C.

UTICA—Miller-Mundy Motor Car Co., Oneida Square. Telephone 884A. S. R. C.

UTICA—Utica Auto. Co., W. H. Birdsall, Mgr. Telephone, 1U. S. R. C.

WHITE PLAINS—E. P. Horton, 105 Railroad Ave. Telephone, 20 B. R.

### OHIO

CINCINNATI—Cincinnati Auto. Co., 807-809 Race St. Telephone, Main 2329. S. R. C.

LIMA—W. E. Rudy, 155 E. Market St. Telephone, 6481. S. R.

COLUMBUS—Avery & Davis. Telephone, 1844. S. R. C.

COLUMBUS—Oscar S. Lear, 201 S. High St. Telephone, 739. S. R. C.

DAYTON—Kiser & Co., 29 E. 2d St. Telephone, 1087. S. R. C.

SPRINGFIELD—D. Vanderpool, 12 E. High street. Telephone, 10762. S. R. C.

YOUNGSTOWN—A. E. Bown, 134 E. Federal St. Telephone, 1034. S. R.

### OKLAHOMA

EL RENO—I. F. Hensley. S. R. C.

### PENNSYLVANIA

CHESTER—John Taylor, 504 Market St. Telephone, 652. S. R. C.

COLLEGEVILLE—Geo. F. Clamer, Main St., above R. R. Station. S. R.

BETHLEHEM—Lawrence L. Beckel, 211 S. Main St. S. R.

BRISTOL—C. R. Thompson, 611-13 Bath St. Telephone, Standard. S. R.

EASTON—George G. Snyder, 200 S. 3d St. S. R. C.

HARRISBURG—Kline Cycle Mfg. Co., 12 N. Mkt. Square. Telephone, 642 X. S. R. C.

PHILADELPHIA—Banker Brothers, Broad and Vine Sts. Telephone, 1-39-11. S. R.

PHILADELPHIA—Quaker City Automobile Co., 304 North Broad St. Telephone, 1-33-83. S. R. C.

PHILADELPHIA—Hart Cycle & Auto. Co., 828 Arch St.

PHILADELPHIA—Parkin & Le Fleur Motor Cycle Co., 2740 No. Broad St. S. R. C.

PHILADELPHIA—Jno. Wanamaker, Twenty-third and Walnut streets. Tel. 1-33-65. S. R. C.

PITTSBURGH—Banker Brothers, Baum and Beatty Sts. S. R.

NEW CASTLE—Kirk & Smith. Telephone, Bell 13. S. R. C.

READING—Chas. A. Miller, 33 Wood street. Tel. 123-F. S. R. C.

READING—Duryea Power Co., River St. Telephone, 1422. S. R.

READING—E. S. Youse, 46 N. 5th St. Telephone, 147 C. S. R.

SCRANTON—R. W. Whipple, 520 Spruce St. S. R. C.

SELLERSVILLE—Andrew C. Graft, Main St. S. R. C.

# THE BE=NO=CA TIRE



IT HAS ALL THE MERITS of the Pneumatic with none of its faults. You can defy punctures and save the price of many ordinary tires by using the BE=NO=CA tire. Fatal accidents have been caused through unsafe tires. No accident can happen with our tire.

Send for illustrated catalogue which tells you all about it.

THE STANDARD ANTI-FRICTION EQUIPMENT COMPANY  
52 Broadway, New York, U. S. A.

In answering advertisements please mention THE AUTOMOBILE MAGAZINE.



THE CAR THAT DID

THE BEST THING ON WHEELS

*"Nothing to Watch but the Road"**"Built to RUN, AND DOES IT"*

## THE OLDSMOBILE

The pioneer Automobile again shows its real merit. Out of thirteen competitors it was the only one to finish in the 1,000 lbs. class—thus winning the highest award

**THE PRESIDENTS' CUP**

in the New York-Boston Reliability Run

The cheapest RELIABLE Automobile made. As cheap as imitations and BETTER

**PRICE \$650.00, F. O. B. DETROIT**

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Oldsmobile Co., New York.	F. L. C. Martin Co., Plainfield.	Rochester Automobile Co.,
National Capitol Automobile	Autovehicle Co., Newark, N. J.	Rochester, N. Y.
Co., Washington, D. C.	F. W. Stockbridge, Paterson.	Seager & Close, Tucson, Ariz.
Quaker City Automobile Co.,	Mississippi Valley Auto Co.,	F. E. Gilbert, Jacksonville.
Philadelphia, Pa.	St. Louis, Mo.	Texas Imp. & Machine Co.,
H. B. Shattuck & Son, Boston.	George Hannan, Denver, Col.	Dallas, Tex.
Banker Bros. Co., Pittsburg.	Day Automobile Co., Kansas	Abbott Cycle & Auto Co.,
Oldsmobile Co., Cleveland, O.	City, Mo.	New Orleans, La.
W. H. Metzger, Detroit, Mich.	Clark & Hawkins, Houston.	C. H. Johnson, Atlanta, Ga.
Oldsmobile Co., Githens Bros.	Hyslop Bros., Toronto, Ont.	Sutcliffe & Co., Louisville, Ky.
Co., Chicago, Ill.	Manufacturers Co.,	Brown-Thompson & Co.,
Fisher Automobile Co.	San Francisco, Cal.	Hartford, Conn.
Indianapolis, Ind.	John W. Chester Co., Nash-	Masons' Carriage Works,
Olds Gasoline Engine Works,	ville, Tenn.	Davenport, Iowa.
Omaha, Neb.	A. F. Chase, Minneapolis.	Adams & Hart, Grand Rapids,
W. C. Jaynes Automobile Co.,	J. E. Richard, Columbia, S. C.	Kline Cycle & Auto Co.,
Buffalo, N. Y.	Oldsmobile Co., Milwaukee.	Harrisburg, Pa.

Write for illustrative book to Dept. K.

## OLDS MOTOR WORKS

DETROIT, - - MICH.



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## AUTOMOBILE RUNNING GEARS, SPUR COMPENSATING GEARS,

SUITABLE FOR STEAM, GAS OR ELECTRICITY

Our running gears are all equipped with our own make of self-contained spur compensating gears. No spreading of Rear Truss. Can supply the trade with Compensating Gears or Running Gears complete. Write for prices.

**Reading Automobile and Gear Company**

TENTH AND EXETER STREETS, READING, PA.

## ECONOMICAL IGNITION

IT is very foolish to spend much money on ignition when the most reliable can be obtained for little money. We have interesting printed matter on this subject and will be glad to send you full details of the Apple Economical Igniting outfits for either touch or jump spark. We manufacture everything in the ignition line for automobile, marine or stationary engines.



**The Dayton Electrical  
Mfg. Co.**

250 ST. CLAIR STREET, DAYTON, OHIO

New York stock carried by Charles E. Miller  
97 Reade Street, New York

Philadelphia Office  
The Bourse Bldg.

Chicago Office  
19-21 La Salle Street

St. Louis stock carried by A. L. Dyke  
Linmar Bldg.

## MASON

IS THE NAME  
OF THE BEST

**AUTO ENGINES  
and APPLIANCES**

Send for FREE Illustrated Catalogue

**THE MASON REGULATOR CO.**  
158 Summer St., Boston

## Cheap "Juice"

Why pay Electric Light Companies for charging the batteries of your vehicle or for lighting your house, when you can generate your own electricity?

**For Less Than \$500**

We will put you in a complete electric plant, and once installed it will virtually run itself.

**TWO CENTS IS ALL  
IT WILL COST YOU**

to write us for particulars. Isn't it worth that?

**JANTZEN & CAMPION**

267 West 39th Street  
**NEW YORK CITY**

**The Comfort and the Style of  
an Automobile is in its Body**

EXPERT DESIGNING AND CONSTRUCTION  
HAVE MADE



**Frantz Bodies**

STANDARDS OF EXCEL-  
LENCE AND ELEGANCE

**THE FRANTZ BODY CO.**

AKRON, O., U. S. A.

In answering advertisements please mention THE AUTOMOBILE MAGAZINE.



# The Steam Automobile Won

One  
Stearns  
Steamer

Did You See B-51?

One  
Reliable  
Finisher

## NO TROUBLE CAN BE EXPECTED IF YOU RUN THE Stearns Steam Carriage

EVERY RELIABILITY TEST PROVES THAT

FOR BUSINESS OR PLEASURE

**SIMPLICITY  
ECONOMY  
RELIABILITY**

Characterize the **Stearns Carriages**, the product of highly skilled designers and workmen. Built more substantially than the lighter types and without the ponderous appearance of the road machines of the day. 9 Models. Prompt Delivery.

ILLUSTRATED CATALOG ON APPLICATION.

**Stearns Steam Carriage Co., Syracuse, N. Y.**

## THE LIGHT OF THE WORLD SOLAR LAMPS

*More Frenchy than the French. (With a few Solar Improvements.)*

### 1903 MODEL SOLAR MOTOR LAMPS

*"The Evening Dress for Automobiles"*

#### PHARE SOLAR HEADLIGHTS

The most powerful light projector ever produced anywhere. Actual comparisons will prove it the peer of any foreign or domestic gas headlight.

Large size, full brass,	each, \$40.00	Small size, full brass,	each, \$30.00
Nickel or brass and enamel,	" 35.00	Nickel or brass and enamel,	" 25.00

#### SOLAR AUTOIL LAMPS

Perfect burning, powerful light givers. Proof against extinguishment by any condition of speed, road, wind or weather. Their striking and artistic design will add to the finish of autos to which they are attached. Cold blast central draught principle.

Price per pair, in full brass,	\$25.00
" " nickel and enamel,	15.00

Send for 1903 circular of 20 other styles of oil, gas and electric lamps, auto horns, tails, lamps, brackets and radiator discs or fins.

**BADGER BRASS MFG. CO.,**

**KENOSHA, WIS., U. S. A.**

Makers of the De Luxe of fully guaranteed Motor Accessories



## A LITTLE RIGHT OFF THE TOP

IS ALWAYS TAKEN FOR THE



## PACKARD'S PERFECT RECORD

The bluest ribbon and the best certificate in all these  
leading contests have gone to

### Packard

400 Miles New York-Rochester  
100 Miles Long Island  
100 Miles A. C. A.  
100 Miles Chicago  
500 Miles New York-Boston

### 2—GOLD MEDALS—2

In the New York-Boston Test Qualifying  
for the President's Cup. The PACKARD  
Won the Gasoline Carriage Crown was  
the universal public verdict.

Don't order your 1903 Automobile before  
investigating Packard merit.

"ASK THE MAN WHO OWNS ONE"

**OHIO AUTOMOBILE CO., Warren, Ohio**

NEW YORK—Adams, McMurtry Co.  
PHILADELPHIA—Rudolph & Winslow  
BOSTON—H. B. Shattuck & Son

CHICAGO—Pardee & Co.  
LOS ANGELES—Grippen & Church  
SAN FRANCISCO—A. B. Costigan & Co.



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# STEAM vs. GASOLINE

A DECIDED VICTORY FOR STEAM

AND THE

## Grout Steam Cars

WERE

### GOLD MEDAL WINNERS

The Steam Automobiles, entry for entry, scored over the Gasoline Carriages.

#### The Red, White and Blue Grout Steam Cars

Were in the lead throughout the Reliability run from New York to Boston and return. Note the percentage of steam vehicles in the non-stop winners. **19 Started, 18 Finished.** THE GROUTS ARE BLUE RIBBON WINNERS. Two vehicles went the entire distance without a stop of any kind. One with only a five minutes' delay, to adjust water glass.

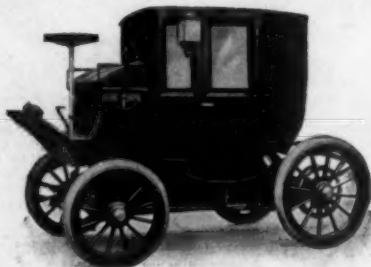
The 1903 GROUT TONNEAUS and TWO-SEATED TOURING CARS ready. We are ready to appoint agents in unoccupied territory for 1903.

**GROUT BROS. - Orange, Mass.**

## *Columbia* Automobiles

ELECTRIC—GASOLINE

Seventh  
Year  
Of  
Success



Vehicles  
for  
All  
Requirements

Runabouts  
Delivery Wagons  
Broughams

Surreys  
Victorias

Tonneaus  
Cabriolets  
Trucks

Write for Our New 24-Page Catalogue

**ELECTRIC VEHICLE CO., HARTFORD, CONN.**

New York, 100 Broadway    Boston, 43 Columbus Ave.    Chicago, 1421 Michigan Ave.

FOR BICYCLES

SINGLE TUBE

FOR AUTOMOBILES

HARTFORD'S SINGLE TUBE

DUNLOP'S DETACHABLE

## HARTFORD and DUNLOP TIRES

Have Stood Pre-eminently Foremost Since the Introduction of  
Pneumatic Tires

Few devices have been the subject of a greater inventive faculty or  
more persistent and successful exploitation, and few have  
reached such a high state of development.

**They Never Vary in Quality or Workmanship Because  
They Cannot Be Made Better or of Better Materials**

If the BEST is none too good for you, it will pay you to adopt  
these widely and most favorably known tires. Every  
user is bound to be satisfied with them.

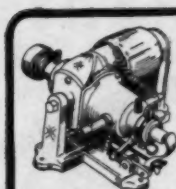
True Economy Represents Buying the Best Wherever You Can Find It

**THE HARTFORD RUBBER  
WORKS COMPANY**  
Hartford, Conn.  
U. S. A.

FOR SULKIES

THESE ARE THE  
ONLY TOOLS YOU WILL NEED

FOR CARRIAGES



**To Owners of  
Gas and Gasoline  
Engines, Launches,  
Automobiles, Etc.**

Do away entirely with  
all starting and run-  
ning batteries and their  
constant trouble and ex-  
pense by using instead an

### Auto-Sparker.

No belt—no switch—no batteries. Can be at-  
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Fully guaranteed and costs less than 50 cents  
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# The Automobile Magazine

VOL. IV No. 12

DECEMBER, 1902

PRICE 25 CENTS

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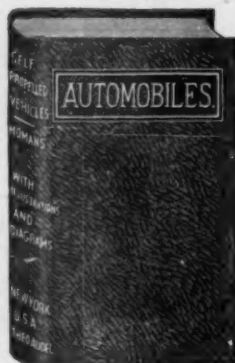
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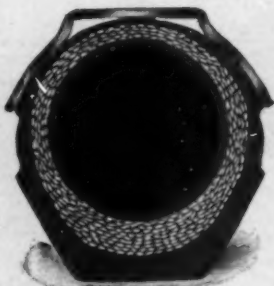
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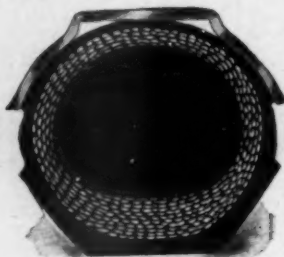
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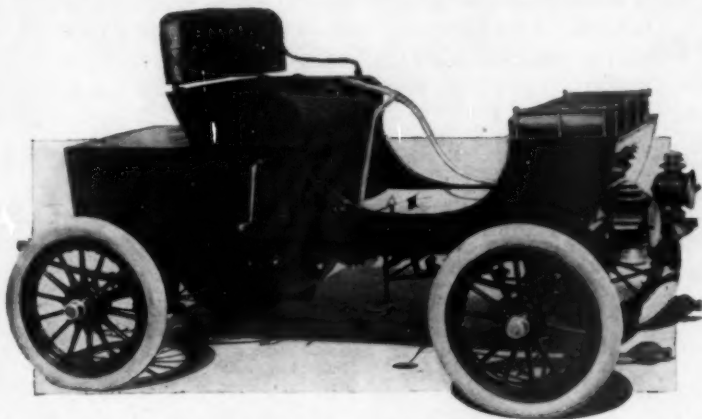
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 FLUSHING—Nicks Auto Depot, 81 Grove St. Telephone, 233-a Flushing. S. R. C.  
 GARDEN CITY—August Porrier, Franklin St. Telephone, 42-A. Charge.  
 GLEN COVE, L. I.—J. S. Patrick. S. R. C.  
 HUNTINGTON—Arthur & Flessel, 53 Main St. S. R.  
 LONG ISLAND—Graphic Cycle Co., W. Hampton Beach and Quogue. Telephone, 2B W. Hampton. S. R.  
 ROCKVILLE CENTER—Chas. E. Edwards. S. R.  
 SOUTHAMPTON, L. I.—J. S. Allen. Tel. 43-I. S. R.

## MARYLAND

BALTIMORE—Balt. Motor Carriage Co., 327 N. Calvert St. Telephone, 2296Y. S. R.  
 BALTIMORE—O. L. Gooden, 1118 Cathedral St. Telephone, B. 1121. C. & P. 1199-A.  
 WESTMINSTER—Wm. N. Keifer, 88-92 E. Main St. Telephone, W. M. 36. S.

## TONKIN AUTOMOBILE BOILERS AND KEROSENE BURNERS

### Specialties

**Tonkin Dry Plate Boilers  
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 Heavy Truck Boilers  
 Perfect Kerosene Burners**

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That STEAM  
Cars will not  
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"Reading"  
Style "E"

THE recent Reliability Run should remove all possibility of a doubt on this point. You will surely change your tune to STEAM if you will investigate the merits of our 1903 line of

## Reading Steamers Simple Method of Starting Fire High winds do not affect the same

Full information regarding our new Tonneau awaits your inquiry.  
Look us up at Space No. 69, New York Show.

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Largest Automobile Dealers in America

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Pierce 3 1-2, 5 and 6 H. P.

Gasolene Runabout

Toledo International Touring Car  
12 and 16 H. P.

Toledo Steam Carriage

Waverley Electric Automobiles

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Before purchasing an Automobile visit one of our three salesrooms and examine our stock.

Only experienced and expert repairers employed in our repair stations.  
Polite attention and prompt work can be depended upon.

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# Beauty Strength Quality Workmanship

Is found in our Reachless Gear. Five styles for 600 to 3,000 pound vehicles. We will not compete against cheap goods which are in the long run costly to purchasers. ... We furnish our Duplex and Compound Engines and guarantee them. Complete vehicles, less power, also made

Prompt Shipments.

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BOSTON—Winton Motor Carriage Co., 41 Stanhope St. S. R.  
BOSTON—Winton Motor Carriage Co., 41 Stanhope St. Telephone, 776 Columbus. R. S.  
BOSTON—Columbus Automobile Exchange, 147 Columbus Ave. Telephone, 388-2 Tremont. S. R.  
BOSTON—Automobile Headquarters, 66 Stanhope St. Telephone, 842-2 Tremont. S. R. C.  
BOSTON—Park Square Auto. Station No. 1, 43 Columbus Ave. Telephone, Tremont 616. S. R. C.  
BOSTON—H. B. Shattuck & Son, 239 Columbus Ave. S. R. C.  
CAMBRIDGE—Harvard Auto. Co., 8-10 Palmer St. Telephone, 72-2 Camb. S. R. C.  
CANTON—J. E. Kelley. S. R. C.  
CLINTON—Clinton Mch. Works, 460 High St. Telephone, 153-5. S. R.  
CONCORD—John McKuyer. Telephone, 14-5. S. R. C.  
CONCORD—John M. Keyes, Monument St. Telephone, 41-6 and 14-5. S. R. C.  
DORCHESTER—Barden Cycle Co., 232 Adams St. S. R.  
FRANKLIN—Franklin Cycle Co., Central Sq. S. R. C.  
HUDSON—F. D. Knight & Son, 49 Church St. R.  
MARLBORO—Marlboro Auto & Car Co. Telephone, 9154-13. S. R.  
MEDFORD—F. H. Greaney, 60 Park St.; 439 High St. W. Medford. Telephone, 27-3 Medford. S. R. C.

NEWTONVILLE—Fred J. Read, 821 Washington St. Telephone, 326-3. S. R.  
NEWTON HIGHLANDS—Woodworth Bros., 2 Hartford St. Telephone, 153-3. S. R.  
NO. ATTLEBORO—John P. Bailou, 175 Washington St. S. R. C.  
PLYMOUTH—G. E. Rounds. Telephone, 205-3. S. R. C.  
ROXBURY—Wilson Ourish, 470 Blue Hill Ave. Grove Hill. Telephone, Rox. 55. S. R. C.  
SO. FRAMINGHAM—Chas. F. Whyte, 17 & 19 Irving St. R.  
SPRINGFIELD—Headquarters, 36 Dwight St. Telephone, 1130. S. R. C.  
SPRINGFIELD—Nat. Auto. Supply Co., 226 Worthington St. Telephone, 819-3. S. R.  
SPRINGFIELD—Springfield Auto. Co., 60 Main St. Telephone, 853-4. S. R. C.  
STOUGHTON—James Lehan, Lehan's Bldg. Telephone, 38-4 and 38-7. S. R. C.  
WALTHAM—Harvard Auto Corporation. S. R.  
WESTFIELD—Loomis Automobile Co. S. R. C.  
WORCESTER—Worcester Automobile Co., 30 Exchange St. Telephone, 1444. S. R. C.  
WORCESTER—Worcester Automobile Station No. 1, 43 Foster St. Telephone, 659-4. S. R.  
WORCESTER—Birney A. Robinson, 671 Main St. Telephone, 1550. S. C. R.

## MICHIGAN

GRAND RAPIDS—Louis C. Howard, 35 N. Division St. Telephone, 2195 City. S. R. C.  
MUSKEGON—Dr. C. J. Dove. S. R. C.  
MENOMINEE—D. F. Poyer, 518 Main St. Telephone, 128. S. R. C.

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Builders of Parts for Assemblers

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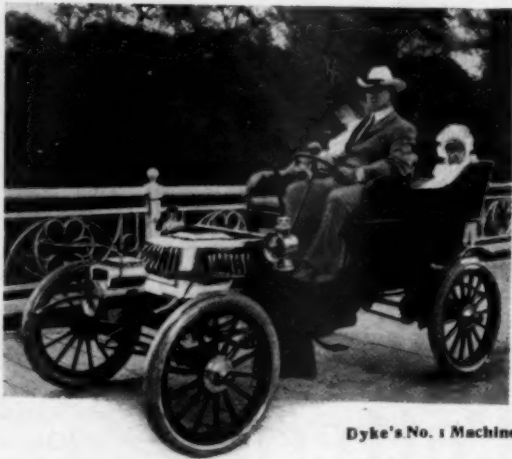


**Dyke's 30 H. P. Gasoline Car.**

ahead and one reverse—beveled geared countershaft with sprocket on each end of countershaft, then back to sprocket on each rear wheel. Rear axle stationary Am. Roller Bearing wheels and rollers, worm wheel steering, detachable rear tonneau. Six can be crowded in rear and three in front. Wheel base, 9 ft.; track, 4 ft. 10 in.; weight 3300 lbs. This machine has been used very little and has made some very good time on a round track. It could make a remarkably good record on a straight-away course. The machine is too large and powerful for owner. **Price Only \$1500.**

can be attached and it will carry four. This machine was built for my own use and is made up from my No. 1 outfit. It has been run about 1000 miles and has not had an adjustment or particle of attention except oiling and washing. It is described in **Catalogue supplement**. We will guarantee it to run with less attention and to give better all round general satisfaction than any machine made. **Specifications**—Wheel base 82 inches, track 4 ft. 8 in., tank placed in front under hood. Detachable rear tonneau. Painting, light red and striped in black, brass lamps, French auto horn, all tools. One lever controls the shifting of the high, low and reverse gears, the other lever controls throwing off and on friction and brake, also auxiliary brake on side. Upholstered in black leather, G. & J. 32x34 tires, brass hubs, brass hood in front. Undoubtedly the handsomest, simplest, most reliable and durable machine ever constructed. **Guaranteed** in every respect. Practically new, only used enough to thoroughly test. **Price, \$900.**

**Mobile, \$325**—We also have a first-class steam machine which has been run only about 500 miles. Fine condition and a bargain.



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The ONLY Automobile that has won EVERY Endurance Contest held in America is the



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### THE MOST PRACTICAL AUTOMOBILE IN THE WORLD

Runabout, 6 h. p., 2 passengers, \$1,200  
Phaeton, 9 " 2 " 1,800  
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We offer you a proved reliability, ease of access to working parts and simplicity of operation that no other make in the world affords, at reasonable prices for good workmanship. Look up our records, ask our customers, get our free booklets.

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ST. LOUIS—Day Auto. Co., 1010 Olive St. Telephone, Bell, Main 1310. S. R.

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BERLIN—Townsend Dowd. Telephone, 8X.  
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BURLINGTON—Gray Mfg. Co., 1116 Main St. S. R.  
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EGG HARBOR—Jacob Wimbeg. Telephone, Bell. S. R. C.  
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Main St. S. R. C.  
HACKENSACK—Wood & Bedly, 311 and 313 Main St. S. R. C.  
HACKETTSTOWN—M. S. Neighbor, Hope St. (King Bldg.). S. R. C.  
HOBOKEN—Meyer, V. F., 520 Washington St. Telephone, 117-B Hoboken. S. R. C.  
JERSEY CITY—Crescent Cycle & Automobile Co., 548 Communipaw Ave. Telephone, 1252 Bergen. S. R. C.  
JERSEY CITY—D. W. Romaine, 70 Erie St. Telephone, 1553 F. S. R. C.  
JERSEY CITY—Geo. A. Smythe, 2936 Boulevard. S. R.  
LAKEWOOD—Jos. B. Hoff, Main St., foot of Lex Ave. Telephone, 125B. S. R. C.  
MORRISTOWN—Willis H. Dretton, 24 Washington St. Telephone, 173. S. R. C.

NEWARK—New Jersey Automobile Co., 8 Central Ave. Telephone, 734 Newark. S. R. C.

NEWARK—The Automobile Company, 79 Orange St. Telephone, 759. S. R. C.

NEWARK—J. W. Geisler, 46 William St. S. R. C.

NEWARK—L. Lawrence, 241 Halsey St. S. R. C.

NEWARK—Lewis J. Worth, 26-28 William St. S. R. C.

NEWARK—Koehler Sporting Goods Co., H. J., 845 Broad St. Telephone, 2364 Newark. S. R. C.

NEWARK—C. S. Calvert, 141 Halsey St. Telephone, 3714. S. R. C.

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NEW EGYPT—Chafey & Brown. S. R. C.

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PATERSON—Stockbridge, F. W., Broadway & 18th St. Telephone, 2433 Paterson. S. R. C.

RED BANK—Geo. H. Patterson, 8 Broad St. S. R. C.

RIDGEWOOD—S. B. Hagerman, Bergen Co. S. R. C.

FARRIGHT—H. L. Zobel, Jr. Telephone, 26-B. S. R. C.

SOUTH ORANGE—W. L. Mead, 275 Ridgewood Road. G.—Repair.

SUMMIT—C. C. Henry. R.

SWEDESBO—Chas. Hall. S. R.

VINELAND—C. W. Pearson, N. 6th St. Telephone, 35 Interstate. S. R.

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WATER COOLED, FOUR CYCLE, UPRIGHT GASOLINE MOTORS. TWO AND FOUR CYLINDER TYPE. FROM 3 TO 60 H.P. FOR AUTOMOBILES AND LAUNCHES. FROM 10 TO 150 H.P. FOR STATIONARY PURPOSES.

Also Automobiles of Every Style,  
Delivery Wagons, Omnibuses and Auto Trucks

SEND FOR PRICES

THE RUTENBER MANUFACTURING CO., 115 DEARBORN STREET, CHICAGO

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Telephone Call, 289 W'msburch

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THE SALAMANDRINE BOILER CO., 250 Broadway, N. Y.

Gentlemen:—I wish to say that the ten horse power boiler that I have in my machine is the *best thing* that I have run up against as yet and have got to meet the machine that can *pass me* on the road for *one mile or thirty*.

If the boiler had been of the common variety it *would have been burned out a hundred times or more*, but shows no weakness as yet, and don't think that it will. I have no trouble to *hold the steam* at 250 lbs., at any time, *up-hill or down*, and will be pleased to have any of your representatives call and see what the machine will do.

Very truly yours

(Signed) EDWARD K. BLAISDELL



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Everybody Knows It Now

They watched B34 in the  
Endurance Run

NEVER MISSED A CONTROL  
NO MECHANICS  
NO HELPERS  
NOTHING SPECIAL

*Went in right cut of stock and went through on its merits, with a load of three passengers instead of two as intended.*

One of the best carriages at any price and undoubtedly the best value on the market.

Catalogs Free

## St. Louis Motor Carriage Co.

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## 50 per cent. of your troubles may be caused by inferior oils

Smutting spark plugs and heating cylinders are two of the evils resulting from cheap oils.

# Visco Oils

are made especially for automobile use and they do the work every time. Some very interesting information on this subject can be had by addressing an inquiry to

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51 Front Street, New York

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NEW YORK—Banker Bros. Co., 50 West 43d St. Telephone, 4138 38th St. S. R. C.  
NEW YORK—International Motor Car Co., 91 Fifth Ave. Telephone, 1407 18th St. S. R. C.  
NEW YORK—Manhattan Automobile Co., 56 West 43d St. S. R. C.  
NEW YORK—Geo. Mortensen, 150 West 38th St. S. R. C.  
NEW YORK—Oldsmobile Co., 40 West 60th St. Telephone, 2580 Columbus. S. R. C.  
NEW YORK—New York Automobile Repository, 143 West 51st St. Telephone, 1001 Columbus. S. R. C.  
NEW YORK—Pa-Delford & Bell, 250 West 80th St. Telephone, 2562 Riverside. S. R. C.  
NEW YORK—St. Nicholas Automobile Depot, 55 West 66th St. Telephone, 1271 Columbus. S. R. C.  
NEW YORK—Westchester Automobile Co., 12 East 27th St. Telephone, 192 Madison Sq. 523 Fifth Ave. Telephone, 9023 38th St. S. R. C.  
NEW YORK—W. H. Webster Automobile Co., 10 West 60th St. Telephone, 1874 Columbus. S. R. C.  
NEW YORK—A. Elliott Ranney, 306 W. Fifty-ninth street. Telephone, 2060 Columbus. S. R. C.  
NEW YORK CITY—Spalding-Bidwell Co., 38-40 West 43d St. Telephone, 691 38th St. S. R. C.  
NEW YORK CITY—Chas. Strathmann, 175 E. 120th St. Telephone, 1444-A Harlem. S. R. C.  
NEW YORK CITY—Smith & Mabley, 7th Ave. and 38th St. Telephone, 6945, 38th.  
NEW YORK CITY—"The Central," 1684 Broadway, between 52d and 53d Sts. Telephone, 596 Columbus. S. R. C.

NEW YORK CITY—John Wanamaker, 140 E. 57th St. Telephone, 1161 38th St. S. R. C.  
NEW YORK—West End Automobile Exchange, 152 West 127th St. Telephone, 3326 Harlem. S. R. C.  
NEW YORK—Geo. Mortensen, 150 West 38th St. Telephone, 6532 38th St. S. R. C.  
NEW YORK—Ajax Motor Vehicle Co., 220 West 36th St. Telephone, 5576 38th St. S. R. C.  
NEW YORK CITY—Automobile Exchange & Storage Co., 133-139 West 38th St. Telephone, 5204 38th St. S. R. C.  
NEW YORK CITY—Harlem Automobile Co., 159-163 West 127th St. Telephone, 1453 Harlem. S. R. C.  
NEW YORK—Knickerbocker Automobile Station, 143 West 51st St. Telephone, 1801 Columbus. S. R. C.  
NEW YORK—Diamond Cycle Co., 209 West 126th St. R.  
NEW YORK—Eureka Automobile Agency, 2285 Eighth Ave., 123d St. Telephone, 3493 Harlem. S. R. C.  
NEW YORK—Storage Battery Supply Co., 239 E. 27th St. Telephone, 1065 Madison Sq. S. R. C.  
NEW YORK—West End Storage Warehouse, 202-210 West 89th St. Telephone, 144 Riverside. S. R. C.  
NEW YORK—Lewis H. Woods, 2276 Jerome Ave. 306 Tremont. S. R. C.  
ALBANY—F. G. Robinson, 422 Broadway and 97 Central Ave. S. R. C.  
BINGHAMTON—R. W. Whipple, 169 State St. S. R. C.  
BUFFALO—G. H. Poppenberg, 636 Main St. Telephone, Tupper 472. S. R. C.  
BUFFALO—Buffalo Auto. Exchange, 230 Franklin St. Telephone, Lupper 870. S. R. C.  
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No such praise has ever been given motor makers as Brennan Motors have received. All good things are praised—and rightly so. READ THIS CAREFULLY:

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'THE BRENNAN MOTOR CO., Syracuse, N. Y.

"Gentlemen:—I have the first automobile finished. We have made a good test run of about one hundred miles. The motor so far as I can see works perfectly. No noticeable vibration and as near noiseless as it seems it would be possible to make a motor.

"So far it is indeed very satisfactory. I thank you very much for your last letter of full instructions telling me how to take care of and operate motor; it has been a great deal of help to me.

"The automobile is a great success which can be largely attributed to the motor. It has created quite an excitement among the Greeley people.

"Please quote price on a motor for a ten passenger rig.  
(Name furnished if desired.)

Yours truly, \_\_\_\_\_"

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## The Prophet Probably Meant the Midgley

"As for the wheels, it was cried unto them,  
in my hearing, 'Oh, Wheel!'"—Ezekiel, 10, 13.

### THE MIDGLEY—IT IS THE WHEEL!

and the people will cry for it, and manufacturers of automobiles, if alive to their best interests, will give the people what they cry for.



## The Midgley Tubular Steel Wheel

looks better, lasts longer, and is safer than any other wheel made. Our artillery pattern is guaranteed for one year, and to last longer than any automobile they carry. We will replace free of charge any Midgley wheel if broken in a fair test, where strength counts. The Midgley Wheel can accommodate any bearing, and weighs no more than any other wheel.

Send for testimonials and other literature about the Midgley Wheel.

**THE MIDGLEY MFG. CO.,**

Columbus, Ohio

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## Use Albany Grease for your Automobile.

### WHY?

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It is used by most manufacturers of automobiles to start their new machines.

Use No. 2 grade for Winter and No. 3 for Summer. The quality of all grades is the same, the only difference is in consistency.

It can be purchased the world over from engine and mill supply hardware oil houses.

Only made by

Adam Cook's Sons, 313 West St., N.Y. City, U.S.A.

This Trade Mark on Every Package.



Look out for Yellow Label.

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NIAGARA FALLS—W. H. Davey, 231 First St. Telephone, Bell 336-X. S. R.

ONEIDA—Oneida Rubber Tire Works, Cedar and Phelps Sts. Telephone, Bell. S. R. C.

FOUGHKEEPSIE—John Van Benschoten, 14-20 Catherine St. Telephone, 29-A. S. R. C.

RHINEBECK—J. Vanderlinden. S. R. C.

ROCHESTER—Jos. J. Mandery, 150-170 South Ave. S. R. C.

ROCHESTER—Rochester Auto. Co., 150-170 South Ave. Telephone, 2. S. R. C.

SCHENECTADY—A. R. Burtiss & Son, 149-15 Jay St. Telephone, 202-D. S. R. C.

SUFFERN—J. B. Campbell, Orange and Lafayette Aves. S. R. C.

SYRACUSE—Syracuse Auto. Co., 346-348 E. Warren street. Telephone, 955. S. R. C.

Telephone, 4138 38th street. S. R. C.

TROY—James Lucey, 359-361 Fulton St. Telephone, 399-M. S. R. C.

UTICA—Miller-Mundy Motor Car Co., Oneida Square Telephone 884A. S. R. C.

UTICA—Utica Auto. Co., W. H. Birdsall, Mgr. Telephone, 1U. S. R. C.

WHITE PLAINS—E. P. Horton, 105 Railroad Ave. Telephone, 20 B. R.

### OHIO

CINCINNATI—Cincinnati Auto. Co., 807-809 Race St. Telephone, Main 2329. S. R. C.

LIMA—W. E. Rudy, 125 E. Market St. Telephone, 6481. S. R.

COLUMBUS—Avery & Davis. Telephone, 1844. S. R. C.

COLUMBUS—Oscar S. Lear, 201 S. High St. Telephone, 739. S. R. C.

DAYTON—Kiser & Co., 29 E. 2d St. Telephone, 1087. S. R. C.

SPRINGFIELD—D. Vanderpool, 12 E. High street. Telephone, 10762. S. R. C.

YOUNGSTOWN—A. E. Bown, 134 E. Federal St. Telephone, 1034. S. R.

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CHESTER—John Taylor, 504 Market St. Telephone, 632. S. R. C.

COLLEGEVILLE—Geo. F. Clamer, Main St., above R. R. Station. S. R.

BETHLEHEM—Lawrence L. Beckel, 211 S. Main St. S. R.

BRISTOL—C. R. Thompson, 611-13 Bath St. Telephone, Standard. S. R.

EASTON—George G. Snyder, 200 S. 3d St. S. R. C.

HARRISBURG—Kline Cycle Mfg. Co., 13 N. Mkt. Square. Telephone, 642 X. S. R. C.

PHILADELPHIA—Banker Brothers, Broad and Vine Sts. Telephone, 1-39-11. S. R.

PHILADELPHIA—Quaker City Automobile Co., 304 North Broad St. Telephone, 1-33-83. S. R. C.

PHILADELPHIA—Hart Cycle & Auto. Co., 828 Arch St.

PHILADELPHIA—Parkin & Le Fleur Motor Cycle Co., 2740 No. Broad St. S. R. C.

PHILADELPHIA—Jno. Wanamaker, Twenty-third and Walnut streets. Tel. 1-38-65. S. R. C.

PITTSBURGH—Banker Brothers, Baum and Beatty Sts. S. R.

NEW CASTLE—Kirk & Smith. Telephone, Bell 13. S. R. C.

READING—Chas. A. Miller, 33 Wood street. Tel. 123-F. S. R. C.

READING—Duryea Power Co., River St. Telephone, 1422. S. R.

READING—E. S. Youse, 46 N. 5th St. Telephone, 147 C. S. R.

SCRANTON—R. W. Whipple, 530 Spruce St. S. R. C.

SELLERSVILLE—Andrew C. Graft, Main St. S. R. C.

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IT HAS ALL THE MERITS of the Pneumatic with none of its faults. You can defy punctures and save the price of many ordinary tires by using the BE-NO-CA tire. Fatal accidents have been caused through unsafe tires. No accident can happen with our tire.

Send for illustrated catalogue which tells you all about it.

**THE STANDARD ANTI-FRICTION EQUIPMENT COMPANY**  
50 Broadway, New York, U. S. A.

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When you see the BAKER ELECTRIC, you see the best made, most efficient and finest finished Electric Automobile in the country. We manufacture Stanhopes with Victoria or open top for ladies' driving or physicians' use, and two styles of Runabouts that have no equal. Send for Catalog.

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IF SO, ADVERTISE IT IN

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*1 Maiden Lane, New York*

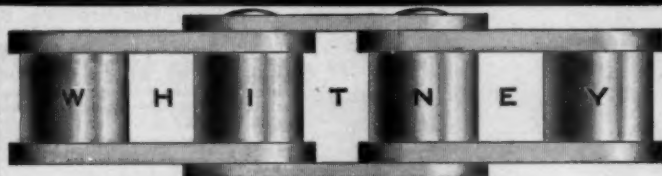
**PATENTS.**  
GEO. P. WHITTLESEY,  
Loan & Trust Building,  
Washington, D. C.  
*Terms reasonable. Pamphlet sent*



**K**EEP the auto  
up to the top  
notch of speed and  
ease of running  
by using Dixon's  
Graphitoleo.

Ask for a free sample and  
Booklet 10 about it.

JOSEPH DIXON  
CRUCIBLE CO.  
JERSEY CITY.



FAMOUS FOR ACCURACY AND DURABILITY  
**THE WHITNEY MFG. CO., Hartford, Conn.**

To be  
Used  
by the  
Leaders  
in  
1903

In answering advertisements please mention THE AUTOMOBILE MAGAZINE.

**Tried,  
Tested  
and Proven.**

**ADDRESS ALL CORRESPONDENCE  
TO**

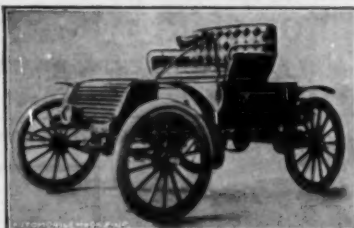
## Friedman Automobile Co.

**No. 3 EAST VAN BUREN STREET,  
CHICAGO, ILL.**

**Price, \$750.00.**

**Hydro-Carbon.**

**Capacity, 125  
Miles.**



**6 H. P., Actual,  
Starts from  
Seat. No Gear.**

**Simplest  
Machine Ever  
Constructed.**

**17,000  
Miles of Actual  
Road Experience.**

**MANUFACTURED AT BELVIDERE, ILLS., BY THE**

## NATIONAL SEWING MACHINE CO.

**CAPACITY, 10 MACHINES PER DAY.**

**IMMEDIATE DELIVERY.**

**We have done our  
own expert-  
mending**

**AGENTS  
WANTED**



**:: BARRETT'S PATENTS**

## The Barrett Automobile Jack

**is a QUICK-ACTING  
AUTOMATIC LOWERING JACK**

**Having a Lifting Capacity of ONE TON—  
Dead Weight—and Adapted to any  
Automobile.**

**The "BARRETT" JACK is  
QUICK, DURABLE, SAFE,  
POWERFUL, EFFICIENT**

**And its LOWERING APPLIANCE is a NEW  
and INDISPENSABLE Feature**

**SEND FOR CIRCULAR AND PRICES :: LIBERAL DISCOUNTS TO DEALERS**  
**BARRETT JACKS are made ONLY by The DUFF MANUFACTURING CO.**

**Works and General Offices  
Allegheny, Pa.**

**Pittsburg, Pa.**



## AUTOMOBILE RUNNING GEARS, SPUR COMPENSATING GEARS,

SUITABLE FOR STEAM, GAS OR ELECTRICITY

Our running gears are all equipped with our own make of self-contained spur compensating gears. No spreading of Rear Truss. Can supply the trade with Compensating Gears or Running Gears complete. Write for prices.

**Reading Automobile and Gear Company**

TENTH AND EXETER STREETS, READING, PA.

## Something New

In an Automobile Cap, furnished with eye-shield which serves as goggles and protects the eyes. This can be folded back into cap out of sight and out of the way when not in use. Always with you—never in the way.



**\$2.50, Post-paid anywhere in U.S.**

This cap is made of black calfskin, silk sewed, satin lined, with French visor and high stiff front. Eye-shield is made of transparent tinted green celluloid very pleasant to the eyes, or white celluloid, if preferred.

Same shape as above in dull black Mexican Kid, with eye shield .... **\$2.00**

Same shape in Black French Kid, with eye-shield ..... **\$1.50**

Any size furnished. State size in ordering. Mailed prepaid on receipt of price.

**The POST & LESTER CO.**  
HARTFORD, CONN.

The

*Searchmont*

*"America's  
Leading  
Automobile"*

**3 × 3 = 9**

**3 Endurance Tests  
3 Entries in Each  
9 Perfect Records**

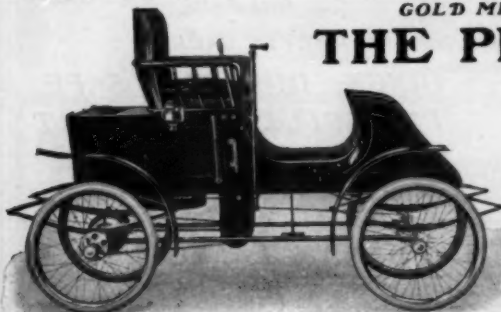
**FOURNIER-  
SEARCHMONT  
AUTOMOBILE CO.**

556 NORTH AMERICAN BUILDING  
PHILADELPHIA, U. S. A.

Send for Catalog

GOLD MEDAL WINNERS

## THE PRESCOTT



**Steam as a Motive Power  
is King.**

200 mile New York and Boston reliability run the PRESCOTT finished without a bad mark: not a bolt or nut touched.

**Perfect Construction**

**Perfect Performance**

**Carries 2 or 4 Passengers**

Get Description.

**Prescott Auto Mfg. Co.**  
83 Chambers St., NEW YORK

In answering advertisements please mention THE AUTOMOBILE MAGAZINE.



## One Minute

given to the consideration of **Automobile Insurance** will convince every prudent owner of an automobile that it is a wise precaution to carry insurance policies protecting him against loss:

1. From fire; and
2. From damages and damage suits for personal injuries, for negligent operation, defective machinery or other causes.

**Fire Insurance** policies of the ordinary style are issued under the most liberal forms to cover automobiles while in storage and those of the "floater" style to cover while in storage or use within the United States.

**Liability** policies not only protect from loss, but save the annoyance incidental to the defence of damage suits as well. The cost of such policies is relatively small.

Full explanation of the several forms of **Automobile Insurance**, as well as estimates for each style, will be given upon request by mail, telephone or personal interview. Prompt attention given to all communications.

### INSURANCE DEPARTMENT

**American Estates Managing Company**

Telephone 4545 Cortlandt

271 Broadway, New York



# OLDSMOBILE

"Nothing to watch but the road"

An unbroken record of success attests the high state of perfection attained by

## The Oldsmobile

Two blue ribbons in the Chicago Endurance Run; first honors against the crack French and American racers in the two five-mile events at St. Louis; the only automobile in the 1,000 lbs. and under class to finish in the New York-Boston Reliability Run without a penalized stop; and 3 cups for first places in the Chicago Auto. Club Meet, prove the Oldsmobile is built to run *and does it.*

The Oldsmobile with its leather or rubber top and storm apron, essentially "the all year round" motor car, makes a handsome and acceptable

Christmas Present

Price \$650.00, f. o. b. Detroit.  
Call on any of our 58 Selling Agents or write direct for illustrated book to Dept. K.

Olds Motor Works Detroit Mich.



# THE AUTOCAR

## CHAINLESS



**\$1700.**

UNEQUALLED AT THE PRICE

THE AUTOCAR CO.  
ARDMORE, PA. ☞ ☞ ☞ Box C 123

### ...In These Progressive Days...

Every Merchant, Miller and Factory Owner should have his own Isolated Electric Light Plant. The electric light is handy, safe and economical, especially where OTTO Gas and Gasoline Engines are used as a prime mover. We have had the experience in building special electric engines that insures the purchaser a close regulating and economical motive power.

Tell Us Your Needs and We Will Submit a Proposition

## OTTO GAS ENGINE WORKS

PHILADELPHIA, PA.

New York Representative—R. C. READING, 120 Liberty Street



THE  
**Packard**

**MOTOR  
CAR**

HAS WON THE HIGHEST POSITION OF HONOR IN ALL THESE LEADING CONTESTS :: :: ::

**400 Miles**  
**New York-Rochester**  
**100 Miles—Long Island**  
**100 Miles—A. C. A.**  
**100 Miles—Chicago**  
**500 Miles—New York-**  
**Boston-New York**

**PACKARD MOTOR  
CAR CO.**

Formerly OHIO AUTOMOBILE CO.  
**WARREN, OHIO**

**NEW YORK** - Geo. B. Adams, Mgr.  
317 W. 30th St.  
**PHILADELPHIA** - Rudolph & Winslow  
**BOSTON** - H. B. Shattuck & Son  
**CHICAGO** - - - Pardee & Co.  
**LOS ANGELES** - - Cuppen & Church  
**SAN FRANCISCO** H. B. Larzere, Mgr.  
1814 Market Street

IN THE  
**New York-Boston-New York**  
**Reliability Run the**

**DARRACQ**  
**—CAR—**

WAS AWARDED THE  
**Hill Trophy**  
**Cup**



DARRACQ LEMOUSINE

DARRACQ PASSENGERS DID  
NOT HAVE TO WALK

THE CARS CLIMBED ALL HILLS  
INCLUDING FOSTER AND  
SPENCER "TERRORS"

DARRACQ CARS HOLD MORE  
RECORDS THAN ANY OTHER  
MAKE IN THE WORLD

**Immediate Delivery**

**AMERICAN DARRACQ  
AUTOMOBILE COMPANY**

F. A. LA ROCHE, Sales Manager  
**652 Hudson Street, New York**  
(Near 14th St. Station 9th Ave. "L")



1160 Candle Power.

# Solar Motor Lamps

**GAS "SHOW THE WAY" OIL**

The 1903 Models of Side Lamps and Head-lights are of the very latest and most stylish design. Are :: :: :: :: ::

## The Greatest Light Projectors

Scientifically and  
Substantially  
Constructed

## Ever Produced

Simple, Safe  
and  
Satisfactory

All our Gas Lamps are fitted with NEW PATENT VALVE which turns ON and OFF both WATER AND GAS. (The Greatest Improvement in Acetylene Gas Lamps ever made.)

**Most Makers will make Solar Lamps their Standard  
Lamp Equipment**

A test will convince you and our prices will get your business :: :: ::

We want to hear from you and submit samples suitable for your car for trial and Approval :: :: :: ::

**The BADGER BRASS MFG. CO., Kenosha, Wis.**





**MILEAGE**

Is the only safe thing  
to judge a tire by

**FISK'S**

are giving more than  
any other. This is due  
to their construction,  
grade of material, and  
workmanship. You can  
learn how they are  
built by writing

**FISK RUBBER  
COMPANY**

CHICOTEE FALLS & MASS.

**MASON**

IS THE NAME  
OF THE BEST

**AUTO ENGINES  
and APPLIANCES**

Send for FREE Illustrated Catalogue  
**THE MASON REGULATOR CO.**  
158 Summer St., Boston

**Kelecom  
Gas Motors  
Autolyte  
Acetylene Lamps  
Automobile Horns**

Send for catalogue and prices.

**A. H. FUNKE**  
325 Broadway New York

*The*  
**ORIENT  
Runabout**

**POWERFUL  
and RELIABLE**



8 H. P., Price \$875

**THE EASIEST CARRIAGE  
TO OPERATE  
IN THE WORLD**

WRITE FOR CATALOGUE

PROMPT DELIVERY

**WALTHAM MFG. CO.**  
WALTHAM, MASS.

## PHINEAS JONES & CO.

MAKE

## Artillery Wheels For Automobiles

One Quality—THE BEST

ADDRESS

301 to 313 MARKET ST.  
NEWARK, N. J.

R. S. V. P.

## MOTOR VEHICLES

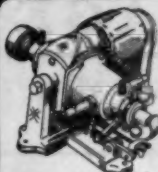
For Business and Pleasure

ENGINES, GEARS,  
MUFFLERS, ETC.

DESBERON \$1.50  
PLUGS, —

Desberon Motor-Car Co.

51st Street and Twelfth Avenue  
NEW YORK CITY



To Owners of  
Gas and Gasoline  
Engines, Launches,  
Automobiles, Etc.

Do away entirely with  
ALL starting and run-  
ning batteries and their  
constant trouble and ex-  
pense by using instead an

### Auto-Sparker.

No belt—no switch—no batteries. Can be at-  
tached to any engine now using batteries.  
Fully guaranteed and costs less than 50 cents  
per year to operate. Write for descriptive  
booklet and testimonials.

MOTSINGER DEVICE MFG. CO.  
38 Main Street, Pendleton, Ind.

GET OUR CATALOGUE OF SUPPLIES.

Caps, \$1.50 and 3.00.

Spark Plugs, \$1.75, 2.50, 2.75,  
and 3.00.

Coils from \$5.50 to 36.00.

French Horns, \$3.50 and 3.00.

Auto Gongs, \$3.00 to 4.00.

EVERYTHING TO BUILD STEAM  
OR GASOLINE VEHICLES.

THE P. J. DASEY CO.,

19 and 21 La Salle St., Chicago, Ill.



Wonderful Results with  
**MOSLER  
Spit Fire Plug**

Pat. April, 1902.

Protected Porcelain and  
Sparkling Points. Special  
Nickel Rod with Screw Ad-  
justment. No Platinum to  
bend, none to break.

Reversible Porcelain  
Double Life,  
Complete, \$3.50  
Extra Porcelain, 24c.

Any Standard French and  
American Threads.  
AGENTS WANTED.

A. R. MOSLER  
309 Broadway, New York



Automobile  
Trimmings  
and Woodwork

— Prices Low —

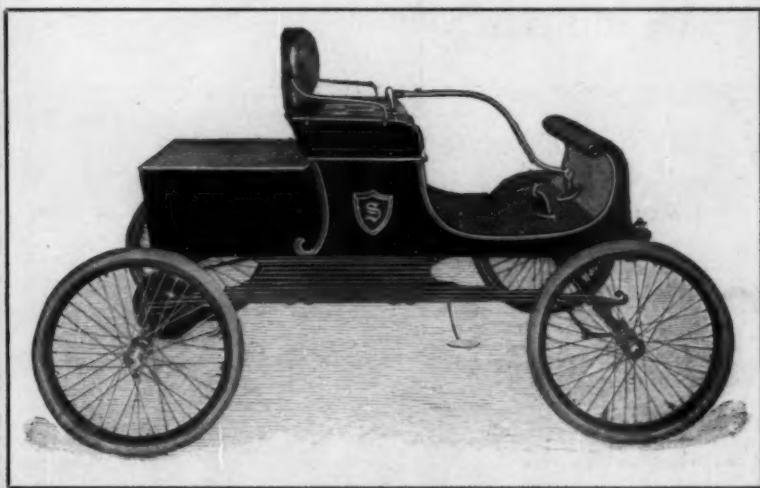
The Hill Mfg. Co.  
1382 WEST AVENUE,  
BUFFALO, N. Y.

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# The Average Man

# \$650

wants a vehicle that will carry him anywhere he wants to go and not require a skilled mechanic to keep it in order.



## The SPAULDING Gasoline Runabout

meets his every requirement. Starts from the seat. Runs 200 miles on one charge of gasoline and is **SIMPLE — DURABLE — ECONOMICAL.**

### Spaulding Automobile & Motor Co.

63 Chandler St., BUFFALO, N. Y.

### NEW JERSEY AUTOMOBILE CO., Newark, N. J.

Agents for New Jersey and New York City.

**Reliable Agents Wanted.**

# WINTON

**T**HE NEW MODEL 20 horse power WINTON TOURING CAR is the season's automobile triumph. Its many points of exclusive excellence are appreciated by those whose good judgment enables them to differentiate between highest grade scientific construction—and the other kind. It embodies only the best and most expensive building materials.



WINTON TOURING CAR used by Hon. Tom L. Johnson throughout the recent State campaign in Ohio.

**O**UR EXHIBITS at the New York and Chicago Automobile Shows will be complete.

---

**The Winton Motor Carriage Co.**

BEREA ROAD, CLEVELAND, O., U. S. A.

*Branches and Agencies throughout the Country*

# Four carriages and Four first class certificates

were our share of the Buffalo run. Isn't this good evidence of the reliability of the

## WHITE ?



It has more points of advantage which appeal to the average user than any other carriage. No water gauge to watch or forget. Simply fire up and go ahead—to Buffalo or any other place.

Isn't this the kind of machine you want ?

BETTER GET OUR NEW CATALOG.

**WHITE SEWING MACHINE CO.**  
CLEVELAND, OHIO.

NEW YORK.

BUFFALO.

DETROIT.

SAN FRANCISCO.

BOSTON.





**PRE-EMINENTLY**

**SATISFACTORY.**

And universally recommended by all high grade manufacturers for  
**"Honest Reputation and Recognized Quality."**

**THE HARTFORD**

(SINGLE TUBE)

**AND**

**DUNLOP**

(DETACHABLE)

**MOTOR  
VEHICLE  
TIRES**

**Fully Meet Every Tire Requirement.**

Our efforts are concentrated in the endeavor to manufacture the highest grade articles that can be produced.

**The Hartford Rubber Works Co., Hartford, Conn., U.S.A.**

## Four carriages and Four first class certificates

were our share of the Buffalo run. Isn't this good evidence of the reliability of the

# WHITE ?



It has more points of advantage which appeal to the average user than any other carriage. No water gauge to watch or forget. Simply fire up and go ahead—to Buffalo or any other place.

**Our 1902 Model is ready.**

Isn't this the kind of machine you want ?

---

BETTER GET OUR NEW CATALOG.

---

**WHITE SEWING MACHINE CO.**  
CLEVELAND, OHIO.

NEW YORK.

BUFFALO.

DETROIT.

SAN FRANCISCO.

BOSTON.



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**Fully Meet Every Tire Requirement.**

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**The Hartford Rubber Works Co., Hartford, Conn., U.S.A.**



## The Oldsmobile

Pioneer in Automobiles—and the highest standard of Automobile excellence. Noiseless, odorless, speedy, safe and inexpensive. Handsome in design, yet with such strength in construction that it carries 1,500 pounds evenly, easily and smoothly. Nothing complicated. Power is transmitted to the rear axle by block chain of four thousand pounds tensile working strength, running direct from motor shaft. Gearing is used only in hill climbing, and backing up, but no gears are used when running at the regular speed.

**The Oldsmobile** will run upstairs, downstairs, and stop anywhere along the way, at the will of the operator. It will make twenty-five miles an hour over the roughest roads without "turning a hair."

It is a perfectly practical, durable machine. Price \$650.00 F. O. B. Detroit.

### Sales Agents

Oldsmobile Co., 238 W. 38th Street, New York.  
Oldsmobile Co., Washington, D. C.  
Quaker City Automobile Co., Philadelphia.  
H. B. Shattuck & Son, Boston, Mass.  
Western Automobile Company, Cleveland, O.  
William E. Metzger, 254 Jefferson Av. Detroit, Mich.

Ralph Temple Co., 293 Wabash Av., Chicago, Ill.  
Fisher Automobile Co., Indianapolis, Ind.  
Olds Gasoline Engine Works, Omaha, Neb.  
George Hannon, 612 16th Street, Denver, Col.  
The Manufacturers Co., San Francisco, Cal.

To avoid disappointment place your orders early as the demand is large. Write for illustrated book.

**The Olds Motor Works,**  
1250 Jefferson Ave., DETROIT, MICH.

**"OUR ADMIRATION IS GENERALLY  
GIVEN,-- NOT TO THE MAN**

who does what nobody else attempts to do, but to that man  
who does BEST what multitudes do well." *Macaulay.*

This holds the secret of our continuous and healthy growth; it accounts for our prestige as makers of good tires.

**HARTFORD SINGLE TUBE TIRES**

AND THE DETACHABLE

**DUNLOP TIRES**

Are the Original Pneumatic Tires  
of their Respective Types.

THEY WERE BEST YEARS AGO,  
THEY ARE BETTER TO-DAY..

The maintaining of their high quality throughout these many years, and our unceasing efforts in the direction of improving them wherever possible, has placed these tires far in the lead of all competitors.

Imitations may come and go, but  
"Hartford's" and  
"Dunlop's"

Live on Forever in Popular Favor.

QUALITY TELLS

IN THE LONG RUN.

Manufactured by

**THE  
HARTFORD  
RUBBER  
WORKS  
COMPANY,  
HARTFORD, CONN.,  
U. S. A.**



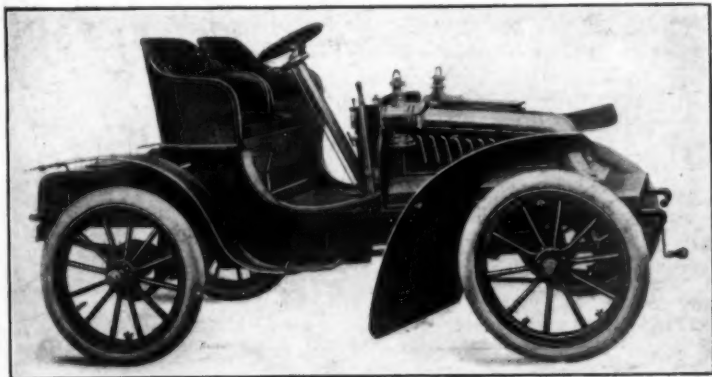


IMMEDIATE DELIVERY

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# Darracq Motor Cars

Weekly importations enable us to give immediate delivery of one of the best known French Cars. Three forward speeds and one reverse. Detachable tonneau



Darracq cars awarded GOLD MEDAL at Automobile Show, London, February, 1902, for BEST CAR of high powered light class. Also won French economy tests in same class February, 1902, with a record of  $6\frac{1}{4}$  litres for 100 kilometers—approximately 45 miles run on one gallon.

Winner of 47 Firsts out of 52 Races in 1901, and at annual French Hill Climbing Trials at Gaillon Hill, November, 1901.

---

## American Darracq Automobile Co.

652 Hudson Street Near W. 13th St.  
and Ninth Ave. New York City

CHAS. D. COOKE, Sec'y, Treas. and General Manager

C. J. FIELD, New York Sales Agent, 133 West 38th St.

# "Agreeable Company

on a long journey makes  
the way seem shorter."

ALL USERS OF **Bicycles,**  
**Automobiles**  
OR **other Vehicles**  
whose wheels are equipped with

The **HARTFORD**

Single Tube **TIRES**  
or the Detachable  
**DUNLOP TIRES**

recognize them as being  
**Agreeable, Reliable Company**  
on any kind of a journey.

**Because:**—They give all round satisfaction  
always—possessing unequalled resiliency and  
speed, standing a vast amount of wear without  
deterioration, and being the simplest, easiest,  
most manageable tires ever invented.

Since the introduction of Pneumatic Tires, "**HARTFORDS**" and "**DUNLOPS**" have had a world wide reputation which we have ever carefully guarded and sustained.

Their Unexcelled Quality  
and  
High Grade Construction  
have made them to-day

**SUPREME IN THEIR  
RESPECTIVE FIELDS.**

THE HARTFORD  
RUBBER WORKS COMPANY,  
HARTFORD, CONN.  
— BRANCHES. —

New York, Boston, Philadelphia,  
Atlanta, Buffalo, Detroit, Chicago,  
Cleveland, Minneapolis, Denver  
and San Francisco.





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Automobile  
**Jack**

IS A QUICK-ACTING,  
AUTOMATIC LOWERING JACK

Having a Lifting Capacity of ONE TON—Dead  
Weight — and Adapted to any Automobile.

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Powerful, Efficient**

And its LOWERING APPLIANCE is  
a NEW and INDISPENSABLE Feature.

Send for Circular and Prices.

**LIBERAL DISCOUNTS TO DEALERS**

BARRETT JACKS are made ONLY by

The **DUFF MANUFACTURING CO.**

Works and General Offices  
ALLEGHENY, PA.

PITTSBURG, PA.

# USE THE HAYNES- APPERSON AUTOMOBILE

*The most  
Practical  
Automobile  
in the World*

**E**VERY one of the so-called "weak" or "unreliable" features of gasoline machines has in ours an alternative. Drivers of our carriages frequently pass automobiles stalled on account of accidents which, in our machine, would not cause an operator to leave his seat, because another way has been provided for all ordinary troubles.



**SURREY. 9 H.P. 36 in. Wheels. 2,000 Lbs. \$1,800**

**E**ACH cylinder of our machine is a complete engine in itself, capable of bringing the car home under all ordinary conditions.

There are two Vaporizers—The mixture is mechanical and must be mechanically deranged to be affected. This practically never happens to both cylinders at once. The other cylinder will bring you home, or will "turn the crank" for you, permitting immediate and easy adjustment of the one that is out.

Our Spark is taken from a Magneto—Should it give out (a rare occurrence), you switch to the starting batteries and continue to run.

Each Speed Clutch is complete in itself—Should one give out you have three others.



**PHAETON. 9 H.P. 36 in. Wheel. 1,900 Lbs. \$1,500**

**N**OTHING but a smash-up or a complete exhaustion of supplies can stall a Haynes-Apperson Machine.

Nine years' experience is back of its simplicity, strength of construction and practicability.

No failure mars our record. Every machine we have ever entered in any contest has won first place, demonstrating the efficiency of our product to the satisfaction of every inquirer and the envy of all competitors.

These pictures show our machines in correct relative proportions. Our catalogue tells the rest. We refer you to our record and our customers.



**RUNABOUT. 6 H.P. 32 in. Wheels. 1,250 Lbs. \$1,200**

**HAYNES-APPERSON CO., - Kokomo, Ind.**

The Oldest Makers of Gasoline Motor Cars in America.  
The Details of an Automobile cannot be perfected in a Season.



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Works and General Offices  
ALLEGHENY, PA.

PITTSBURG, PA.



# *Columbia*

## Electric Automobiles

Have steadily increased in favor during the past six years because of their simple construction, refined design and finish, ease of control and the small amount of care necessary to maintain them in perfect running order.



ELECTRIC VEHICLE CO.

COLUMBIA RUNABOUT, MARK XXXI.  
(Also furnished with Top.)

Runabouts, Victorias, Surreys, Cabriolets,  
Tonneaus, Broughams, 'Buses, Wagonettes,  
Delivery Wagons, Etc.

SEND FOR OUR LATEST CATALOGUE.

*We are offering a number of attractive bargains in shop-worn and second-hand vehicles. Price list on application*

## Electric Vehicle Company

HARTFORD, CONN.

100 Broadway, New York — 1421 Michigan Ave., Chicago



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Works and General Offices  
ALLEGHENY, PA.

PITTSBURG, PA.

# STANDARD

I  
N  
G  
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TUBE  
TIRES



O  
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B  
L  
E

TUBE  
TIRES

"Born for Success  
with those qualities which win"

**Hartford      Dvnlop**  
**Tires      AND      Tires**

Have Stood Pre-eminently Foremost Since the Introduction of Pneumatic Tires

Few devices have been the subject of a greater inventive faculty or more persistent and successful exploitation, and few have reached such a high state of development.

**They Never Vary in Quality or Workmanship Because  
They Cannot Be Made Better or of Better Materials**

If the BEST is none too good for you, it will pay you to adopt these widely and most favorably known tires. Every user is bound to be satisfied with them.

**True Economy Represents Buying the Best Wherever You Can Find It**

We Also Manufacture

**THE TURNER ENDLESS SOLID TIRE**

for very heavy vehicles. Particularly adapted for use where proper strength is required and length of service is guaranteed.

**THE HARTFORD RUBBER  
WORKS COMPANY**  
Hartford, Conn.  
U.S.A.



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Powerful, Efficient**

And its LOWERING APPLIANCE is  
a NEW and INDISPENSABLE Feature.

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BARRETT JACKS are made ONLY by

The DUFF MANUFACTURING CO.

Works and General Offices  
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# Studebaker AUTOMOBILES



## A MOTOR-VEHICLE WORTHY of the STUDEBAKER NAME

WE have not been indifferent to the introduction of the horseless carriage. Rather than push upon the market an imperfect and immature product, however, we have expended time and money in order to secure a type of automobile which would not discredit our standing in the vehicle world.

## THE STUDEBAKER ELECTRIC VEHICLE

is admirably simple in construction, safe, easy to operate and remarkably free from vibration and noise. It is not a racing machine, but a strongly built practical motor-vehicle for everyday service on country roads and city streets.

Extensive experiments and tests have convinced us that the electric motor, with the great improvements recently made in storage batteries, provides the most desirable equipment in every way. It is simplicity itself, clean, odorless, durable and sufficiently speedy for all practical purposes.

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SAN FRANCISCO, Cal.: cor. Market and 10th Sts.

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DENVER, Colo.: Corner 15th and Blake Sts.

SALT LAKE CITY, Utah: 157-159 State St.

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The  
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**Jack**

IS A QUICK-ACTING,  
AUTOMATIC LOWERING JACK

Having a Lifting Capacity of ONE TON—Dead  
Weight — and Adapted to any Automobile.

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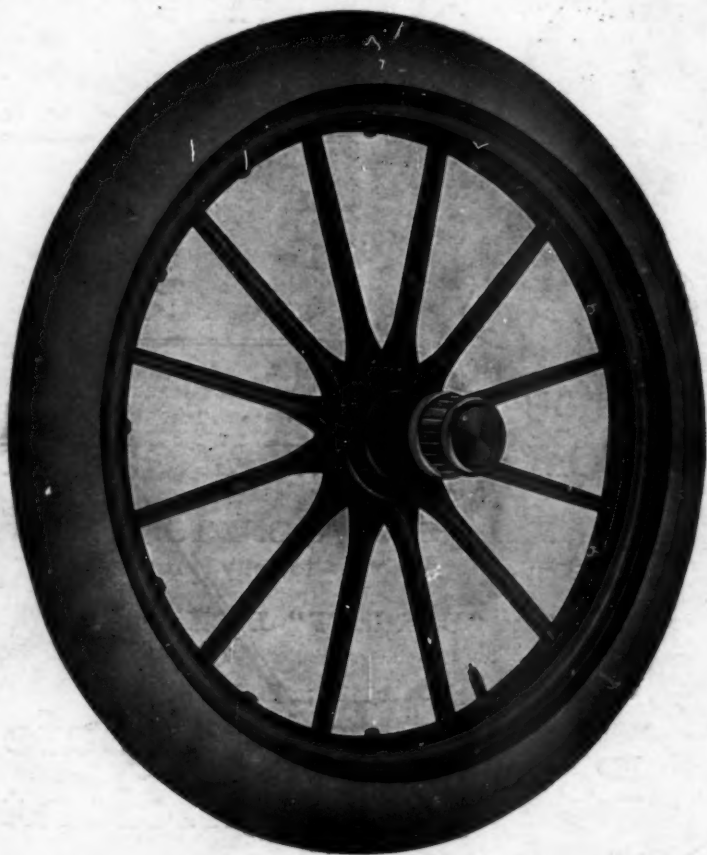
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# Is that a Midgley Wheel?

(YOU HEAR THAT FREQUENTLY NOW)



## Why? Because "THE MIDGLEY" Tubular Steel Artillery Pattern

is setting the pace for stability, safety, strength and economy in the wheel world. Eight times stronger than any other wheel (any construction), weight for weight, and outlasts all others. This is decidedly economy to automobile buyers. Fitted to any automobile and any style of bearing. Manufacturers will furnish Midgley Tubular Steel Wheels if you ask them to. Our guarantee is one year and replace them free if rendered useless from any accident, if your judgment says it was the fault of the Midgley Tubular Steel Wheel. Send for literature and testimonials from delighted customers.

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**MIDGLEY MFG. CO., Columbus, Ohio, U.S.A.**

OUR GUARANTEE IS AS GOOD AS  
The Midgley Tubular Steel Wheel



Which is the acknowledged best automobile wheel made to-day. It is "best" because it is much stronger and, therefore, safer than any other form of wheel made. It is decidedly "fetching" in appearance (artillery pattern) and has all the good points in looks of the wood wheel, with none of the defects. It will outlast six wheels of any other construction, and we replace, free of charge, any

### MIDGLEY TUBULAR STEEL WHEEL

that may be broken in a fair manner where strength was lacking. The Midgley Tubular Steel Wheels accommodate any style of tire, bearing or axle. It is decided economy to have them on your 1903 automobile. Your manufacturer will put them on—and if he cannot we supply them direct. Send for testimonials.

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Western Representative: **K. FRANKLIN PETERSON**, 165 Lake St., Chicago.  
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*The*  
**WINTON**  
**"PUP"**

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During the recent race meetings this wonderful car showed itself in a class by itself. ❀ ❀ ❀ ❀ ❀ ❀ ❀

It contains a 20 H. P. motor, which is to be the standard in the coming season's Winton Touring Car. ❀ ❀

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**The Winton Motor Carriage Co.**

**CLEVELAND, U. S. A.**

# VICTORIOUS

—AT HOME AND ABROAD—



## The White Steam Carriage Wins Out in England's Reliability Contest

True to its former showing made in this country, a WHITE STEAM CARRIAGE completed the 650 miles test with

### **AN ABSOLUTELY CLEAN RECORD**

being one of two out of seventy entries to achieve that distinction. The conditions of this run were unusually severe, the competing vehicles being required to make five separate journeys over different routes and submit to brake tests and hill-climbing trials. The White Steam Carriage used was a six-horse power, taken from stock, and not only scored

### **1800 POINTS OUT OF A POSSIBLE 1800**

but demonstrated its fuel economy by using only 13 quarts per day. Both its track records for speed and its road records for reliability prove that

### **THE WHITE IS A THOROUGHbred**

Write for full particulars, including Prof. Thurston's report on our steam generator, and official reports of important endurance contests

## **WHITE SEWING MACHINE CO.**

(Automobile Department) **CLEVELAND, O.**

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300 Post Street, San Francisco, Cal.

609 Main Street, Buffalo, N. Y.  
12 Woodward Avenue, Detroit, Mich.  
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# HAYNES-APPERSON

MAKES A

## PERFECT RECORD

IN THE N. Y.-BOSTON-N. Y.  
RUN, AND QUALIFIES FOR THE

### President's Cup

The nine horse-power HAYNES-APPERSON last year in the New York-Buffalo run beat ALL MAKES, American and foreign, many of double their horse power, winning HIGHEST HONORS of ALL. This is the reason—the HAYNES-APPERSON is the ONLY AUTOMOBILE that has been consistently developed through 10 years of successful experience on American roads. The same development that has given foreign cars their reputation has given the HAYNES-APPERSON its proved reliability, but because of the more severe conditions in this country there is no car of equal horse-power that will last as long, handle as easily, and ride as smoothly on American highways as this American product.

<i>Runabout, 7 horse-power, 2 passengers, . . .</i>	<i>\$1,200</i>
<i>Phaeton, 12 " " 2 " . . .</i>	<i>\$1,500</i>
<i>Surrey, 12 " " 4 " . . .</i>	<i>\$1,800</i>

A few cars for immediate delivery.

Ask our customers.

Get our Booklets.

## HAYNES-APPERSON CO.

Kokomo, Indiana

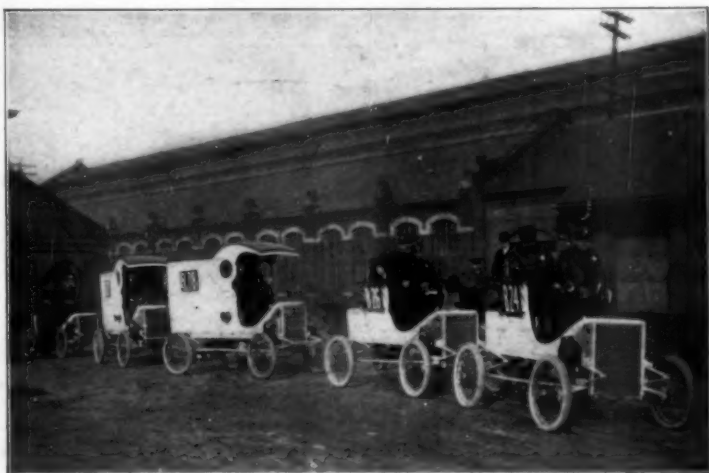
# White Steam Carriages

HAVE BEEN AWARDED

## FOUR GOLD MEDALS

FOR THEIR MAGNIFICENT PERFORMANCE IN THE

## A. C. A. RELIABILITY RUN



Throughout the 500-mile Reliability Run from New York to Boston and return the **WHITE STEAM** formed a procession which moved **with absolute steadiness**—making every control on schedule time, and coming through without mishap of any kind. Out of 75 entries, 17 made perfect scores, and of this number **FOUR** were **WHITES**.

The three White Steam Stanhopes each received the highest possible award, while of the two White Delivery Wagons (the only automobiles of this type ever completing an endurance contest), one received a Gold Medal for perfect performance while the other had only one stop—due to its handling.

*Write for full particulars, including Prof. Thurston's Report on our Steam Generator, and Official Reports of Important Endurance Contests.*

## WHITE SEWING MACHINE CO. (Automobile Dept.)

### CLEVELAND, OHIO

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5979 Centre Ave., East End, Pittsburg, Pa.  
509 Tremont Street, Boston, Mass.

12 Woodward Avenue, Detroit, Mich.  
300 Post Street, San Francisco, Cal.  
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# The HAYNES-APPERSON

is the Only Automobile that  
has been consistently developed  
through 10 Years of successful  
experience on American Roads

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THE same development that has given foreign cars their reputation has given the Haynes-Apperson its proved reliability, but because of the more severe conditions under which it has been produced, there is no car of equal horse power that will last as long, handle as easily, and ride as smoothly on American Highways as this American product.

Runabout, 7 horse power, 2 passengers	-	-	\$1,200
Phaeton, 12 " 2 "	-	-	1,500
Surrey, 12 " 4 "	-	-	1,800

Delivery in ten days on immediate orders. Ask our customers.  
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